

Exhibit 120

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IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:

**ANADARKO PETROLEUM CORPORATION
SECURITIES LITIGATION**

Civil Action No. 4:20-cv-00576

VOLUME 2

REMOTE VIDEOTAPED DEPOSITION OF

BJORN STEINHOLT

Poway, California

March 13, 2023

Reported By:
ERIC J. FINN

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1 Report of Born I. Steinholt, CFA.")

2 BY MR. GRUENSTEIN:

3 Q. Mr. Steinholt, today we are
4 focused on your most recent report, which
5 was January 25, 2023. And I've marked
6 that as Exhibit 549.

7 Can you just confirm that that
8 is in fact your most recent report?

9 A. Yes, it is.

10 Q. Has anything in your
11 background, your personal background
12 changed since your last deposition that
13 you would want to note?

14 A. No.

15 Q. And you understand that you
16 submitted this report in rebuttal of a
17 report prepared by Peter Keller?

18 A. Yes, I did.

19 Q. Okay. And we're going to --
20 that has already been marked, but we'll
21 put it in the system as Exhibit 505. But
22 I understand you also have it in front of
23 you. Correct?

24 A. I do.

25 Q. Okay. So today when I refer

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1 to your report, even though you have
2 quite a few in this case, you'll
3 understand that I'm referring to the
4 report, Exhibit 549?

5 A. Yes.

6 Q. Okay. If you could open up
7 that report and we can start on page 1,
8 footnote 1.

9 A. I'm there.

10 Q. Four lines down you say, "From
11 an economic point of view, the value of
12 an investment is based on the expected
13 future cash flows of that investment,
14 including the timing and associated risk
15 of those cash flows."

16 What do you mean by the timing
17 and associated risk of those cash flows?

18 A. This is exactly the same
19 footnote that I had in my other expert
20 report. And in terms of the timing of
21 the cash flows, if you get a dollar
22 tomorrow, that is more valuable than a
23 dollar five years from now.

24 Q. Okay. And what do you mean by
25 the associated risk?

1 A. We have a discount rate that
2 includes an adjustment for risk when we
3 present value future cash flows. So the
4 riskier the investment is, the less
5 valuable a dollar five years from now
6 would be, using the discounted cash flow
7 approach to fundamental value analysis.

8 Q. How does the concept of
9 associated risk of the cash flow relate
10 to an investment like the Shenandoah
11 field?

12 MR. DROSMAN: Mr. Gruenstein,
13 you cut out at the beginning of
14 that. Do you mind repeating the
15 question, I didn't catch it?

16 MR. GRUENSTEIN: Sure. Let me
17 go a little bit closer. Is that
18 better?

19 MR. DROSMAN: Yes.

20 Q. I asked, how does the concept
21 of associated risk of the cash flow
22 relate to an investment like the
23 Shenandoah field?

24 A. The Shenandoah field, at the
25 beginning of the class period, was

1 discussed as a field that may have an
2 EUR, the estimated ultimate recovery, of
3 a billion barrels of oil. And if the
4 stock price in the future was \$50 per
5 barrel, that would be \$50 billion.
6 However, those \$50 billion would be
7 generated sometime into the future. In
8 fact, years into the future. So
9 consequently, that \$50 billion would not
10 be worth \$50 billion at the beginning of
11 the class period.

12 Q. So just to clarify. You said
13 that if the stock price in the future was
14 \$50. I assume you mean the price of oil?

15 A. If the -- yes. If the
16 stock -- if the oil price, in other
17 words, the price that Anadarko sold the
18 oil for in the future was \$50, and I'm
19 just using round numbers for the purposes
20 of doing an easy calculation, not because
21 I have determined that the oil price in
22 the future would be \$50.

23 But yes, you're correct, I was
24 referring to the oil price per barrel.
25 And I was referring to the EUR being --

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1 and I just picked a billion barrels of
2 oil because that is sometimes referenced
3 by the analysts.

4 Q. So does the risk include the
5 risk that the price of oil might drop?

6 A. Well, there is -- there is
7 risk, there is an upside risk and there
8 is a downside risk, right. The risk just
9 means that it's different than what you
10 had expected. In terms of the way we
11 commonly talk about risk, we are
12 typically more concerned with the
13 downside risk. The downside risk being
14 that, well, ten years from now the oil
15 price is going to be significantly less
16 than \$50. But of course there is also an
17 upside list.

18 Q. And would you also agree that
19 the --

20 MR. DROSMAN: Ben, I don't
21 think that he --

22 Q. -- includes --

23 MR. DROSMAN: I don't think he
24 was through answering the question.

25 MR. GRUENSTEIN: Oh, I'm

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1 MR. GRUENSTEIN: Yeah. We
2 haven't moved off the first
3 sentence.

4 MR. DROSMAN: I just wasn't
5 clear because you didn't read that
6 second part originally.

7 MR. GRUENSTEIN: Right.

8 A. Yes. As you read the
9 remainder of that paragraph and also
10 paragraph 39, with significant value, I
11 was referring to the analyst attributing
12 significant value to the Shenandoah. The
13 capital -- I have a Capital One analyst
14 report attributing between \$4 to \$7 per
15 share in potential value to Shenandoah.
16 I have a Morgan Stanley analyst report
17 that attributed \$3 per share to
18 Shenandoah. I have an Imperial Capital
19 analyst worth report that attributed 5.81
20 per share to the -- to Shenandoah, at \$3
21 billion.

22 So that is what I'm talking
23 about in terms of attributing substantial
24 value.

25 Q. Based on plaintiffs'

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1 allegation that Shenandoah was unlikely
2 to be commercially viable, should
3 investors not have attributed significant
4 value to Shenandoah?

5 MR. DROSMAN: Objection; vague
6 and ambiguous, lack of foundation.

7 MR. GRUENSTEIN: I'll ask it a
8 different way.

9 Q. Given the allegation that
10 Shenandoah was unlikely to be
11 commercially viable, is it your view that
12 Shenandoah did not have significant
13 fundamental value as of the beginning of
14 the class period?

15 A. Well, I haven't performed a
16 particular valuation of the Shenandoah.
17 There are plenty of analysts who did. So
18 we have, already have a lot of analyst
19 reports demonstrating that analysts
20 attributed substantial value at that
21 point in time.

22 Obviously if the -- if the
23 negative information that was concealed
24 had been disclosed at the beginning of
25 the class period, then one would -- it is

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1 reasonable to conclude that at that point
2 in time you would have a price decline.
3 And I measure that by what actually
4 happened when the alleged truth was
5 disclosed at the end of the class period.

6 Q. But you used the phrase
7 "unlikely to be commercially viable."
8 That could mean that there is a 40
9 percent chance of commerciality. Right?

10 A. Yes, it could mean -- you
11 know, I haven't gone into -- I don't have
12 the ability to analyze it any further
13 than what the industry experts have done.
14 I don't know in terms of what the actual
15 percentage would be.

16 Q. And if the commerciality was
17 let's say 40 percent, then would you
18 agree that Shenandoah did have
19 significant fundamental value?

20 MR. DROSMAN: Objection;
21 incomplete hypothetical.

22 A. Well, the value would be
23 different than the values that was
24 disclosed here by -- or was estimated by
25 the analysts.

1 At this point in time the
2 inflation that I have is \$1.75. And for
3 instance, if you're talking about Capital
4 One, we are dealing with estimates of 4
5 to \$7 per share value. A dollar 75 is
6 only a fraction of that. It's also a
7 fraction of the \$3 per share estimated by
8 Morgan Stanley. It's also a fraction of
9 the 5.81 per share invested by Imperial
10 Capital.

11 So even under my -- let's
12 assume just for purposes of argument,
13 say, that, you know, the stock price was
14 worth -- analysts believed that it was
15 worth 4 bucks a share. Well, you know,
16 my one -- a dollar 75 is substantially
17 less than that. So that means that, you
18 know, there still would be \$2.25 of
19 value, which would still be substantial.
20 Even if you make the maximum of 58
21 percent adjustment to their valuation at
22 the very beginning of the class period,
23 which also -- it's also a reflection of
24 how conservative my valuation is, or my
25 estimate of damages is in this particular

1 case. BJORN STEINHOLT
2 I'm not saying that inflation
3 is \$4 per share or \$3 per share or \$5.81
4 per shave. I have inflation at the
5 beginning of the class period of \$1.75.

6 Q. Do you know whether the
7 analysts that you've been talking about
8 attribute a 100 percent chance of
9 commerciality to Shenandoah?

10 MR. DROSMAN: Objection; calls
11 for speculation.

12 A. There are different things
13 that the analysts would have to do. And
14 I don't have a sufficient insights, and I
15 don't think that the analyst reports
16 necessarily provides sufficient insights
17 going into detail with respect to these
18 valuations.

19 These valuations are
20 stand-alone valuations of Shenandoah.
21 Which means that the impact, when you
22 consider Anadarko as a deep sea driller
23 and what this meant for Anadarko in terms
24 of the future revenue growth, it may
25 actually -- and all of the infrastructure

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1 that Anadarko had in the area at the
2 time, you know, the value to -- the value
3 may be even greater to Anadarko than the
4 stand-alone value.

5 On the flip side to that you
6 can also say that well, listen, you know,
7 maybe this is, you know, the net asset
8 value projection is, you know, is, you
9 know, kind of had optimistic assumptions
10 with respect to the prospect of the field
11 being sanctioned and so on.

12 So there is different things
13 that you can dive into, whereby you could
14 argue well, maybe it's too high, maybe
15 it's too low. But at the same token,
16 it's certainly -- we are certainly
17 dealing with quite substantial valuations
18 here.

19 Q. Would you agree that these
20 analysts are building in a level of risk
21 when they're performing their valuations
22 of Shenandoah?

23 MR. DROSMAN: Objection; lack
24 of foundation, calls for
25 speculation, compound.

1 A. The degree to -- I mean,
2 typically when I look at the valuations,
3 for instance, they look at the resource
4 size and they are multiplied by some per
5 barrel value that may go across fields,
6 so they don't necessarily, you know, and
7 then they come up with a value. Why the
8 analyst picked that particular valuation,
9 and maybe some other analyst picked a
10 different type of valuation in order to
11 value the resource, you really have to
12 depose the analysts and really have them
13 explain it to you.

14 But, for instance, I discussed
15 earlier in the testimony an analyst
16 report by Bank of America in March of 19
17 of 2013, with the headline, you know,
18 this is, you know, the confirmed value
19 here is \$4 per share. And by this time,
20 you know, at the beginning -- beginning
21 period of the class period, Bank of
22 America, although I didn't reference it
23 here, still had a \$4 value for
24 Shenandoah. And that was in the
25 headline, you know.

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1 A. Yes, I do. INHOLT

2 Q. Okay. And then you say on 42,
3 paragraph 42, you say, "Furthermore,
4 Mr. Keller's subjective interpretation
5 still does not mean that investors knew
6 that Shenandoah was not commercially
7 viable."

8 So I notice that you use the
9 phrase "was not commercially viable," as
10 opposed to in 3 you used "was unlikely to
11 be commercially viable."

12 Is that based on plaintiffs'
13 allegations?

14 A. Yes, it is.

15 MR. DROSMAN: Objection;
16 failed to read the entire sentence.

17 Q. You can answer.

18 A. The specific reference to
19 commercially viable is a reference, and I
20 even have a footnote to that particular
21 term. And the footnote is the Steinholt
22 report, paragraph 28, section J.

23 So that's why I put that
24 footnote in there, so that, yes, that's
25 where I get it from.

1 Q. Okay. And what's the
2 difference in your mind between "was not
3 commercially viable" and "was unlikely to
4 be commercially viable"?

5 A. What's the difference?

6 Q. Is -- does "was not
7 commercially viable" mean that there was
8 zero percent of commercial viability?

9 A. Well, I do not have any, you
10 know, additional color to the plaintiffs'
11 allegations than my summary of my
12 understanding in the initial report that
13 we discussed also at the last deposition
14 when we actually went through each one of
15 these subsections. And I was answering
16 questions on each one of them at my prior
17 deposition.

18 Now, I haven't had any change
19 in terms of my understanding of
20 plaintiffs' allegations from the first
21 time you asked me about it, about them,
22 until now, today. Other than my
23 recollection in terms of my first report
24 may not be as clear as it was on the
25 first time I took the deposition. Right

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1 now I'm kind of focusing on Mr. Keller.

2 Q. Right.

3 But the fact that you're using
4 different language going from "was
5 unlikely to," to "was not," does that
6 suggest that the allegation is that the
7 likelihood of commercial viability
8 decreased between Shen-3 and Shen-4?

9 MR. DROSMAN: Objection; calls
10 for speculation, lack of
11 foundation.

12 A. The -- it is based on my
13 understanding of plaintiffs' allegations.
14 That is the way that they characterize
15 their allegations as of the time Shen-4
16 results were disclosed. Which is
17 different than the way that they
18 characterized their allegation --
19 allegations at the time the Shen-3 was
20 disclosed.

21 Q. But would you agree that "was
22 not commercially viable" is a lower
23 likelihood of commercial viability than
24 "unlikely to be commercially viable"?

25 MR. DROSMAN: Objection; calls

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1 for speculation, lack of
2 foundation, vague and ambiguous.

3 A. I think the text -- I think it
4 speaks for itself. I mean, not being
5 commercially viable is different than
6 whatever the term was, more likely than
7 not uncommercial.

8 Q. It's different -- I'm sorry.

9 A. Yeah, it's different, yes.

10 Q. And it's different in the
11 sense that it's a lower likelihood of
12 commercial viability, when you say "was
13 not commercially viable." Right?

14 MR. DROSMAN: Objection; calls
15 for speculation, lack of
16 foundation, vague and ambiguous.

17 A. Yes, I mean, very bad went to
18 worse, yes. I mean, it's not -- but, you
19 know.

20 Q. And another way to put it is
21 that the risk associated with the
22 Shenandoah fields increased from Shen-3
23 to Shen-4. Correct?

24 MR. DROSMAN: Same objections.

25 Q. Well, let me ask you this

1 question: When we started the deposition
2 I was asking you about risk as you used
3 the term in footnote 1. So as Shenandoah
4 became less commercially viable, is it
5 fair to say that the risk associated with
6 that future cash flow increased?

7 MR. DROSMAN: Objection. If
8 you want to give him a copy of the
9 complaint, Ben, maybe he can parrot
10 the allegation.

11 MR. GRUENSTEIN: No, no.

12 A. If something is not
13 commercially viable, you know, you
14 wouldn't think there would be any, you
15 know, future cash flow from that
16 particular resource. Because you
17 wouldn't think that Anadarko would go
18 through and actually develop it.

19 So ultimately it's going to be
20 a decision made by Anadarko. But, you
21 know, you wouldn't think under those
22 circumstances that Anadarko would go
23 forward and develop. Now, with respect
24 to unlikely to be commercially viable,
25 you know, it's very, very unlikely that

1 they would go through with it. But I
2 mean, that's, you know, you would have to
3 kind of ask those questions in terms
4 of -- from the industry experts to kind
5 of assess that. And it's not something
6 that I can particularly assess.

7 But I do want to say that even
8 after the disclosure of the corrective --
9 the disclosure of the alleged truth, that
10 didn't -- you know, analysts discussed --
11 the company said there was just an
12 accounting adjustment. The analysts --
13 in terms of the writedown at least.

14 And the analysts were talking
15 about well, what does that mean. Well,
16 it's unlikely that they will go forward
17 with it.

18 So, you know, even there, you
19 could have some value to the Shenandoah
20 even after the ultimate disclosure of the
21 alleged truth. It was something that the
22 analysts wrestled with a little bit.

23 I'm just basing my estimate of
24 the damages based on capturing the --
25 this particular -- the impact of this

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1 C E R T I F I C A T E

2 STATE OF NEW YORK)

: ss.

3 COUNTY OF NEW YORK)

5 I, ERIC J. FINZ, a Shorthand
6 Reporter and Notary Public within and for
7 the State of New York, do hereby certify:

8 That BJORN STEINHOLT, the witness
9 whose deposition is hereinbefore set
10 forth, was duly sworn by me and that such
11 deposition is a true record of the
12 testimony given by the witness.

13 I further certify that I am not
14 related to any of the parties to this
15 action by blood or marriage, and that I
16 am in no way interested in the outcome of
17 this matter.

18 IN WITNESS WHEREOF, I have hereunto
19 set my hand this 14th day of March,
20 2023.

21 
22 -----

23 ERIC J. FINZ

Exhibit 121

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re: Anadarko Petroleum Corporation
Securities Litigation

Case No. 4:20-cv-576
District Judge Charles R. Eskridge III
CLASS ACTION

EXPERT REPORT OF J. RICHARD DIETRICH, PhD

January 25, 2023

CONFIDENTIAL

Exhibit
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I. Introduction and Assignment

1. I have been retained by Cravath, Swaine & Moore LLP (“Cravath”), counsel for Anadarko Petroleum Corporation, n.k.a. Occidental Petroleum Corporation (“Anadarko”), R.A. Walker, Robert G. Gwin, Robert P. Daniels, and Ernest A. Leyendecker, III (collectively, “Defendants”), as an independent expert witness to provide my opinions regarding Anadarko’s accounting treatment for certain well costs and periodic assessments of non-producing leasehold properties for impairment, particularly as applied to Anadarko’s deepwater Shenandoah exploration project (the “Shenandoah Project”).¹ I also have been asked to evaluate and respond to certain financial accounting and reporting opinions expressed by D. Paul Regan, CPA/CFF, in his expert report dated November 9, 2022 (the “Regan Report”).² Specifically, I have been asked to evaluate Mr. Regan’s assessment of the following accounting decisions with respect to the Shenandoah Project:

- Whether Anadarko’s decision to suspend the costs associated with the Walker Ridge Block 52 #2 Well (AFE 2087315) (“Shen 3”) as of December 31, 2014 was consistent with U.S. generally accepted accounting principles (“GAAP”);
- Whether Anadarko’s decision to continue to suspend the costs associated with the Shen 3 well until the third quarter of 2016 (“Q3 2016”) was consistent with GAAP;
- Whether the Shen 3 well costs were material to Anadarko’s financial statements for the year ended December 31, 2014; and
- Whether Anadarko’s decision to impair the unproven property asset balance related to the Shenandoah Project and expense the previously suspended well costs associated with the Shenandoah Project as of March 31, 2017 was consistent with GAAP.

2. In preparing this report, I reviewed publicly-available information as well as pleadings, produced documents, and deposition testimony in this matter to date. I also have read relevant portions of accounting literature, including authoritative guidance as well as other pertinent

¹ Amended Complaint for Violations of the Federal Securities Laws, *Georgia Firefighters’ Pension Fund v. Anadarko Petroleum Corp.*, filed on August 17, 2020 (“Amended Complaint”).

² To the extent I have not directly addressed herein any individual assertion contained within the Expert Report of D. Paul Regan dated November 9, 2022 (the “Regan Report”), such omission should not be considered evidence that I agree with that assertion or conclusion.

materials. My work is ongoing. I reserve the right to supplement or modify this report, including the opinions and the bases for these opinions, if new information becomes available. I also reserve the right to prepare and present demonstrative exhibits if I am called upon to testify in this matter. Materials that I have relied upon in forming my opinions in this matter are cited throughout this report and listed in **Appendix A**.

3. I am being compensated at a rate of \$800 per hour for my work on this matter. I have been assisted in this matter by staff of Cornerstone Research, who worked under my direction. I receive compensation from Cornerstone Research based on its collected staff billings for its support of me in this matter. Neither my compensation in this matter nor my compensation from Cornerstone Research is in any way contingent upon or based on the outcome of this or any other matter.

II. Qualifications

4. I am a professor emeritus of accounting in the Fisher College of Business at The Ohio State University. For more than 12 years, from October 2000 to January 2012 and from October 2015 to December 2016, I served as department chair for The Ohio State University's Department of Accounting and Management Information Systems. I also have held tenured appointments as a professor of accounting at the University of Illinois at Urbana-Champaign and the University of Texas at Austin.

5. Over the course of my career, I have been involved in standard setting and regulation that affects the professional practice of accounting by publicly traded companies, their accountants and auditors. From August 1999 to August 2000, I was the academic fellow in the Office of the Chief Accountant at the U.S. Securities and Exchange Commission ("SEC"). In that role, I worked closely with the SEC's Chief Accountant and other staff members on accounting and policy issues, including recognition and measurement of assets, liabilities, revenues, expenses, and restatements.

6. From January 2007 to December 2008, I was a member of the Standing Advisory Group of the Public Company Accounting Oversight Board ("PCAOB"). The Standing Advisory

Group was created to advise the PCAOB on the development of auditing and related professional practice standards.³

7. From September 2015 to March 2019, I served as a member of the Financial Reporting Executive Committee (“FinREC”) of the American Institute of Certified Public Accountants (“AICPA”). FinREC interprets GAAP and issues guidance to assist companies and auditors in interpreting and applying GAAP.⁴

8. Throughout my academic career that spans more than 40 years, I have taught courses across a variety of topics at the undergraduate, masters, and doctoral levels. Between 2013 and my retirement, I taught courses focusing on financial accounting at both the undergraduate and graduate levels. Courses included an intermediate financial accounting course that is required for all students who major in accounting at The Ohio State University, an introductory financial accounting course for honors students, and a professional accounting research course for Master of Accounting students. Additionally, during most of my tenure at The Ohio State University, I taught “Accounting for Decision-Making,” a required course for MBA and Executive MBA students that focuses on how accounting is used in the day-to-day practice of general management.

9. I have served as a consultant or expert witness on more than 20 matters involving accounting and/or auditing issues. My curriculum vitae is attached as **Appendix B**. A list of matters in which I have provided expert testimony over the past four years is included as **Appendix C**.

³ The Board convened a Standing Advisory Group to advise the Public Company Accounting Oversight Board (“PCAOB”) on the development of auditing and related professional practice standards. The SAG includes auditors, investors, audit committee members, public company executives, and others. The Board dissolved the Group on March 29, 2021, with the establishment of the Standards Advisory Group. See, PCAOB, “Archive –Standing Advisory Group,” available at <https://pcaobus.org/about/advisory-groups/archive-advisory/standing-advisory-group>.

⁴ FinREC, formerly known as the Accounting Standards Executive Committee (“AcSEC”), is “a senior committee of the Institute for financial reporting. It is authorized to make public statements on behalf of the Institute on financial reporting matters without the clearance of either the Council or the board of directors of the Institute and to clear statements of other committees that include references to financial reporting positions. The mission of FinREC is to determine the Institute’s technical policies regarding financial reporting standards and to be the Institute’s spokesbody on those matters, with the ultimate purpose of serving the public interest by improving financial reporting.” See, American Institute of Certified Public Accountants (“AICPA”), “Financial Reporting Executive Committee – FinREC,” available at <https://www.aicpa.org/interestareas/frc/accountingfinancialreporting/finrec.html>.

III. Background

A. Overview of Anadarko

10. Anadarko engages in the exploration, development, production, and marketing of natural gas, oil, condensate, natural gas liquids, and anticipated production of liquefied natural gas.⁵ Anadarko was among the world's largest independent oil and gas exploration and production companies as of 2016.⁶ Anadarko's asset portfolio includes U.S. onshore resource plays in the Rocky Mountains area, the southern United States, the Appalachian basin, and Alaska.⁷ Anadarko is also among the largest independent offshore producers, particularly in the deepwater Gulf of Mexico ("GOM"), and has exploration and production activities internationally.⁸

B. Overview of Offshore Drilling in the Gulf of Mexico

11. Accounting standards relevant to oil and gas exploration and development have long been informed by the practices of the companies engaged in oil and gas exploration and development, and as described in further detail in Section V.C.1, have evolved over time in response to technological and geographical developments in the industry. Therefore, it is important to understand the history of deepwater offshore drilling and how it differs from more traditional onshore drilling operations when considering the relevant accounting guidance.

12. During the second half of the 20th century, oil exploration and development expanded from onshore to offshore to deepwater locations, including the outer continental shelf within the

⁵ See generally, Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2016, filed on February 17, 2017.

⁶ Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2016, filed on February 17, 2017, p. 4. On August 8, 2019, Anadarko was acquired by Occidental Petroleum Corporation. See, Occidental Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2019, filed on February 28, 2020, p. 2.

⁷ See, e.g., Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2016, filed on February 17, 2017, pp. 7–11.

⁸ See, e.g., Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2016, filed on February 17, 2017, p. 4. As the world's easy-to-reach reserves (*i.e.*, onshore properties) decline with ongoing production, oil and gas companies must increasingly focus exploration efforts on more complex drilling environments, such as offshore, deepwater drilling. See, Brady, Jennings, and Shppard, "Petroleum Accounting: Principles, Procedures and Issues," PwC, 8th Edition ("Petroleum Accounting"), p. 25. Beginning as early as 2006, Anadarko was focused on developing the Lower Tertiary play in the western GOM. See, Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2006, filed on February 28, 2007, p. 9. The first production from the deepwater Lower Tertiary play began in 2010. See, Bureau of Ocean Energy Management, U.S. Department of the Interior, "Deepwater Gulf of Mexico," December 31, 2019, p. 9.

GOM.⁹ As oil exploration and development expanded further and further into the GOM, the technology and techniques required to identify and extract oil from offshore fields, including ultra-deepwater fields, evolved significantly.¹⁰

13. I understand that the physical activities required for offshore exploration (*i.e.*, deepwater GOM) and production can differ significantly from onshore projects.¹¹ For instance, while offshore operations employ similar exploration methods as onshore (*e.g.*, seismic surveys), the costs associated with offshore operations are significantly greater than costs associated with onshore operations.¹² Offshore seismic surveys typically are more expensive than those conducted onshore, as they experience significantly higher equipment and operational costs.¹³ In addition, platforms and related development wells designed for deepwater offshore reservoirs typically cost hundreds of millions of dollars as compared to the several million dollars for onshore development wells.¹⁴ Offshore exploratory drilling costs also are significantly greater than onshore exploratory drilling costs to similar depths due to the more complex nature of deepwater exploration activities.¹⁵

⁹ Bureau of Ocean Energy Management, U.S. Department of the Interior, “Deepwater Gulf of Mexico,” December 31, 2019, pp. 6–7.

¹⁰ Bureau of Ocean Energy Management, U.S. Department of the Interior, “Deepwater Gulf of Mexico,” December 31, 2019, p. 80 (“Because many of the Wilcox reservoirs are typically 20,000+ psi and 30,000+ ft deep, advancements and continuing improvements in high-pressure drilling technology have had to occur in order to explore and develop this geologic trend economically.”), p. 52 (“The GOM has been a crucible for 3-dimensional (3D) seismic acquisition advancements, spurred on by the need for better subsalt imaging capability and larger ships equipped to tow many airgun and streamer arrays.”).

¹¹ Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 452.

¹² Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 453; Bureau of Ocean Energy Management, U.S. Department of the Interior, “Deepwater Gulf of Mexico,” December 31, 2019, p. 69 (“...because of the very deep waters, deep reservoirs, and unexpected pressure regimes, the cost of drilling a well in this environment was enormous. Therefore, to be economic in these conditions, true discoveries would have to be large.”).

¹³ Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 453.

¹⁴ *E.g.*, for the fiscal year ended December 31, 2015, Anadarko suspended \$55 million of exploratory well costs across 18 U.S. onshore projects (*i.e.*, an average of approximately \$3.1 million per project) while it suspended \$314 million for its portion of exploratory well costs across four U.S. offshore projects (*i.e.*, an average of approximately \$78.5 million per project). See, Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2015, filed on February 17, 2016, p. 103. The offshore amounts represent Anadarko’s allocation of the total well costs, and to the extent that there are joint operating agreements in place, these amounts understate the total exploratory well costs. For instance, the initial Authorization for Expenditure (“AFE”) submitted by Anadarko to its non-operating partners indicated that the estimated costs of drilling the Shen 3 appraisal well were approximately \$225.2 million. See, Exhibit 491, APC-00005093–100 at 093. See also, Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 453.

¹⁵ Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 458.

14. Once an offshore exploratory well has found hydrocarbons (*i.e.*, a discovery is made), considerable efforts must still be undertaken to provide an operator and its partners with adequate information to determine whether to proceed with development.¹⁶ Since offshore exploratory drilling typically is significantly more costly than onshore exploratory drilling, the amount of recoverable resources needed to justify the cost of development is much greater in offshore operations than in onshore operations.¹⁷ Because a single deepwater exploratory well cannot provide sufficient data and information to paint a precise picture of the size, shape, and producibility of the reservoir on its own, offshore operators generally carry out an appraisal program by drilling several evaluation or “appraisal” wells to better assess the probable quantity of adequate recoverable resources needed to justify development (referred to as reaching the final investment decision or “FID” where the project is officially sanctioned).¹⁸ In addition, offshore drilling typically is operationally riskier, due to the difficulty of extracting oil and gas in deepwater environments and because the size of the field may be smaller than expected.¹⁹ Evaluation of these risks typically necessitates obtaining additional information before sanctioning development.²⁰ The primary objective of appraisal activity on discovered hydrocarbon accumulations is not to find more hydrocarbons, but rather to reduce the uncertainty regarding the hydrocarbon reservoir and to provide information that better informs a decision on the next action.²¹ Therefore, appraisal wells are drilled specifically to collect information and samples in order to: 1) reduce uncertainties about the reservoir, particularly as it relates to

¹⁶ Frank Jahn, Mark Cook, and Mark Graham, “Hydrocarbon Exploration and Production,” 2nd Edition, (Oxford, UK: Elsevier, 2008), pp. 3–4.

¹⁷ Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 458.

¹⁸ Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 453; Frank Jahn, Mark Cook, and Mark Graham, “Hydrocarbon Exploration and Production,” 2nd Edition, (Oxford, UK: Elsevier, 2008), pp. 3–4. The term “appraisal well” is not defined, and is not used, in GAAP. Accounting professionals, therefore, must determine how to account for the cost of appraisal wells by analogy to wells that are described in GAAP. See also, Deposition of Catherine Anne Green, September 28, 2022 (“Green Deposition”), p. 32:21–23 (“Q: What’s FID? A: Final investment decision, a decision that you’re moving forward with the development.”).

¹⁹ Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 25.

²⁰ Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 25.

²¹ Frank Jahn, Mark Cook, and Mark Graham, “Hydrocarbon Exploration and Production,” 2nd Edition, (Oxford, UK: Elsevier, 2008), p. 191.

production volume; 2) more accurately assess the potential of the discovery; and 3) inform subsequent development decisions.²²

C. Overview of the Shenandoah Project

15. When Anadarko acquired Kerr-McGee Corporation (“Kerr-McGee”) in 2006 for a purchase price of approximately \$16.5 billion (the “Kerr-McGee Transaction”), it obtained the rights to federal lease blocks that contain the Shenandoah field.²³ Evidence indicates that Anadarko allocated approximately \$1.7 billion of the Kerr-McGee Transaction purchase price to Kerr-McGee’s GOM exploration properties—which included the yet-to-be-drilled Shenandoah Project—based on an initial estimate that the projects would recover approximately 370 million barrels of oil equivalent (“MMBOE”).²⁴

16. Following the Kerr-McGee Transaction, on June 3, 2008, Anadarko spud an initial exploratory well in the Walker Ridge area (“Shen 1”), which was completed on January 22, 2009.²⁵ On February 4, 2009, Anadarko announced that Shen 1 encountered approximately 300 feet of net oil pay.²⁶

17. My review of the evidence produced in this matter indicates that, following the initial discovery well, Anadarko implemented an “appraisal program” for the Shenandoah Project by drilling multiple appraisal wells intended to gather information about the size and extent of the field, with the ultimate goal of determining whether sufficient recoverable resources were

²² Frank Jahn, Mark Cook, and Mark Graham, “Hydrocarbon Exploration and Production,” 2nd Edition, (Oxford, UK: Elsevier, 2008), pp. 3–4.

²³ Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2006, filed on February 28, 2007, pp. 2, 9; APC-00265282–286 at 285 (“Regarding NPLH GOM (KMG) portfolio, none has been transferred to Shenandoah as proved reserves have not been booked.”).

²⁴ APC-01750958–1174 at 1035. In a business combination, the acquiring entity typically obtains control of all of the acquired entity’s assets and assumes all of the acquired entity’s liabilities. Accordingly, GAAP requires the acquiring entity in a business combination to allocate the total purchase price of the acquisition to the identifiable assets acquired and liabilities assumed based on their acquisition-date fair values (a process referred to as the “purchase price allocation”). The estimated acquisition-date fair value of each identifiable asset and liability then becomes the recorded book value of those assets and liabilities. See, Accounting Standards Codification (“ASC”) 805-10-05-4; ASC 805-20-25-1; ASC 805-20-30-1. As of December 31, 2014, the GOM Exploration and Walker Ridge non-producing leasehold assets (including the Shenandoah Project) had a net book value of \$477 million and \$93 million, respectively, based on fair value estimates at the time of the Kerr-McGee Transaction. See, KPMG_AP_C_eA_0002543.

²⁵ APC-00653389.

²⁶ Anadarko Petroleum Corporation, “Anadarko Announces Another Deepwater Gulf of Mexico Discovery,” February 4, 2009, available at http://media.corporate-ir.net/media_files/nys/apc/Shenandoah2-4-09.pdf. See also, Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. G-20 (Pay is a measure of the depth of “oil- or gas-saturated rock that is capable of producing oil or gas.”).

present and, if so, how to develop the Shenandoah field. Resources, in this context, are defined as “quantities of oil and gas estimated to exist in naturally occurring accumulations” wherein a portion of the resources may be estimated to be recoverable and another portion may be considered to be unrecoverable.²⁷

18. Given the costly and high-risk nature of oil and gas exploration and development, competitors in the oil and gas industry often combine their capital and expertise in joint operations.²⁸ Anadarko was the operator of the Shenandoah Project and managed the day-to-day operations.²⁹ Anadarko worked with a number of non-operating partners over the years while it operated the Shenandoah Project: 1) ConocoPhillips; 2) Cobalt International Energy, L.P. (“Cobalt”); 3) Marathon Oil Corporation (“Marathon”); and 4) Venari Offshore LLC (“Venari”) (collectively, the “Partners”).³⁰ Although Anadarko was the operator, the non-operating partners all voted on major decisions affecting the joint operations and, as such, Anadarko did not have control over the joint operation and did not consolidate the joint operation as part of its financial reporting.³¹ Accordingly, each partner in the Shenandoah Project accounted for its interest in the project separately for financial reporting purposes and, as a result, may have reached different conclusions in accounting for the project depending on a variety of factors, including different interpretations of geological data and different applications of professional judgment given the facts and circumstances and the relevant GAAP guidance.³²

19. Anadarko began drilling the first appraisal well of the Shenandoah Project (“Shen 2”) on July 1, 2012, but “encountered mechanical issues due to poor cement job which required it to be junked and abandoned” before re-drilling a substitute well on September 16, 2012.³³ According

²⁷ ASC 932-360-20.

²⁸ Cost and risk sharing arrangements allow companies to acquire, explore, develop, and produce oil and gas under costly and hazardous conditions, such as the ultra-deepwater drilling in the GOM where drilling depths reach up to 40,000 feet under maximum water depths of up to 12,000 feet and where offshore drilling rigs can cost several hundred million dollars over several years. See, Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 168.

²⁹ See, e.g., Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2012, filed on February 19, 2013, p. 9; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2013, filed on February 28, 2014, p. 9. See also, Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 173.

³⁰ Exhibit 491, APC-00005093–100 at 093.

³¹ “Undivided interests in oil and natural-gas exploration and production joint ventures are consolidated on a proportionate basis.” See, e.g., Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2016, filed on February 17, 2017, p. 91.

³² See, Section V.B.

³³ APC-00653389; APC-00154334–338; APC-00154339.

to a letter sent to its Partners on September 12, 2012, Anadarko indicated that the primary objectives of the substitute Shen 2 appraisal well, in addition to “hopefully encountering new pay sands,” were to “penetrate the stratigraphic equivalent of the D and E Sands, encountered oil bearing and full-to-base in the [Shen 1 well], and thereafter, determine connectivity (through pressures) between the [Shen 1 well] and the [substitute Shen 2 well].”³⁴ On March 19, 2013, Anadarko announced that Shen 2 encountered 1,000 feet of net oil pay.³⁵ The costs associated with drilling the Shen 2 appraisal well were initially capitalized (*i.e.*, suspended) pending further appraisal of the project.³⁶

20. Shen 3, the second appraisal well, was subsequently spud down-dip of Shen 2 on May 28, 2014 and completed on November 7, 2014.³⁷ According to a letter sent to its Partners on April 8, 2014, Anadarko indicated that the primary purposes of the Shen 3 appraisal well were to test the lateral continuity of the pay sands encountered in Shen 2, attempt to determine the oil/water contacts, and attempt to establish pressure connectivity to the pay sands seen in Shen 2.³⁸ It is my understanding that determining the perimeter of a reservoir’s oil-water contact provides insight into the areal extent and volume of hydrocarbons within the reservoir (based on the reservoir’s size and the depth of the hydrocarbons).³⁹ Thus, the objective of the Shen 3 appraisal well was to better understand the size and volume of the recoverable resources at Shenandoah. Although Shen 3 did not encounter hydrocarbons, Anadarko’s Q4 2014 Operations Report indicated that it “confirmed the sand depositional environment, lateral sand continuity, reservoir qualities and down-dip thickening,” “enabled the projection of oil/water contacts based on pressure data,” and “reduced the uncertainty of the resource range.”⁴⁰ Accordingly, based on various contemporaneous internal documents, Anadarko considered Shen 3 “a successful

³⁴ APC-01741046.

³⁵ APC-00653389.

³⁶ APC-00577160; and APC-00577161. A “capitalized” cost is a cost that is recorded as an asset on an entity’s Statement of Financial Position. A “suspended” cost is recorded as an asset until a subsequent determination is made on whether the cost should continue to be recorded as an asset or should be recorded as an expense. See Section VII.A.1 for further discussion on the distinction between *capitalization* and *suspension*. Note that Anadarko recorded these suspended costs within “Properties and Equipment” as “Oil and gas exploration and production.” See, *e.g.*, Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2013, filed on February 28, 2014, pp. 81, 93, 98, 103, and 105.

³⁷ APC-00653389; Exhibit 491, APC-00005093-100 at 093.

³⁸ Exhibit 491, APC-00005093-100 at 093.

³⁹ Frank Jahn, Mark Cook, and Mark Graham, “Hydrocarbon Exploration and Production,” 2nd Edition, (Oxford, UK: Elsevier, 2008), pp. 17, 19–20, 140, 192–193.

⁴⁰ APC-00349767-783 at 778.

appraisal well.”⁴¹ Costs of drilling the Shen 3 appraisal well were initially suspended in Q4 2014, pending further appraisal of the Shenandoah Project.⁴²

21. On May 25, 2015, Anadarko spud the third Shenandoah appraisal well (“Shen 4”), with drilling continuing through September 7, 2015.⁴³ The primary objective of Shen 4 was to test the up-dip extent of the basin.⁴⁴ In September 2015, Anadarko drilled a Shen 4 sidetrack which encountered more than 620 net feet of oil pay.⁴⁵ In December 2015, Anadarko drilled a second Shen 4 sidetrack that was ultimately abandoned in January 2016.⁴⁶ The well costs associated with Shen 4 were partially suspended, pending further appraisal of the project.⁴⁷

22. A subsequent appraisal well (“Shen 5”) was spud in March 2016 and completed in July 2016, with the primary objective to confirm and extend the reservoir boundaries.⁴⁸ Shen 5 encountered over 1,000 feet of net oil pay.⁴⁹ Costs of drilling the Shen 5 appraisal well were suspended, pending further appraisal of the project.⁵⁰ Shen 5 was retrofitted as a future producing well pending a FID (*i.e.*, it was drilled as a “keeper well”).⁵¹

23. The fifth and final appraisal well (“Shen 6”) was spud on December 15, 2016, with the primary objective to test “potential oil-water contacts and down-dip limits of the hydrocarbon column of the Upper and Lower Wilcox within the central-to-eastern flank of the Shenandoah structure.”⁵² Drilling activities at Shen 6 (including a sidetrack and a bypass on the sidetrack) were terminated in March 2017 when results indicated faulting within the reservoir.⁵³ In

⁴¹ See, *e.g.*, Exhibit 490, APC-00001864–865 at 864 (“This is considered a successful appraisal well to determine the extent of the reservoir.”); APC-00622586 (“Extremely successful by our standards.”); APC-00018993–994 at 993 (“...in case you have not been keeping up with the SHEN 3 coring ops, we had two successful core runs and believe that we have anywhere from 470-490’ of core. Now we have something to work with.”); APC-00153489–490 at 489 (“Diane Seas [sic] (whom I’ve copied) followed up a response to me last week suggesting that it would be capitalized; siting [sic] that it was considered a successful appraisal well and therefore should be classified as capitalized despite the fact that it will not be a producing well.”); APC-00153862 (“The well successfully tested the same well developed reservoir sands 1,500’ down-dip and 2.3 miles east of the Shenandoah-2 well...”).

⁴² Exhibit 490, APC-00001864–865; APC-00156333.

⁴³ APC-00653389.

⁴⁴ APC-00220001–004 at 001.

⁴⁵ APC-00223043–057 at 052.

⁴⁶ APC-00307132–137 at 133–134.

⁴⁷ APC-00307132–137 at 134. Costs associated with deepening the well to a lower target and the second sidetrack well were expensed, while all other costs associated with Shen 4 (including the Shen 4 wellbore itself) were suspended pending further appraisal.

⁴⁸ APC-00002563–813 at 579; APC-00223043–057 at 052.

⁴⁹ APC-00002563–813 at 579.

⁵⁰ APC-00307132–137 at 134.

⁵¹ APC-00307132–137 at 134.

⁵² APC-00739080–081 at 081; APC-00307132–137 at 134.

⁵³ APC-00739080–081 at 081; APC-00091554–563 at 554.

addition, Shen 6 did not encounter oil-water contact on the eastern portion of the field, as intended.⁵⁴ According to contemporaneous documentation, these drilling results from Shen 6 “significantly reduced” the estimated recoverable resources for the Shenandoah Project to a level that Anadarko determined did not justify further drilling given the market prices for oil at that time.⁵⁵ Consequently, Anadarko discontinued the Shenandoah appraisal program in the first quarter of 2017.⁵⁶ Anadarko announced in its Q1 2017 Form 10-Q that it expensed \$435 million of previously suspended well costs associated with the Shenandoah Project and recognized an impairment charge of \$467 million related to non-producing leasehold (“NPLH”) assets associated with the Shenandoah Project.⁵⁷

D. Overview of Allegations

24. Plaintiffs in this litigation allege that during the period between February 20, 2015 and May 2, 2017 inclusive (the “Class Period”), Anadarko made various material misrepresentations and omissions regarding the “size and commercial viability” of the Shenandoah Project.⁵⁸ Plaintiffs have also made claims concerning Anadarko’s accounting decisions with respect to the Shenandoah Project. Specifically, they claim that costs associated with Shen 3 were improperly suspended in Q4 2014 because the well “did not reveal the presence of oil and gas.”⁵⁹

25. Plaintiffs also claim that Anadarko’s decision to take a \$467 million impairment charge related to the Shenandoah Project leases and expense \$435 million of suspended exploratory well costs related to the Shenandoah Project in the first quarter of 2017 was improper because the

⁵⁴ APC-00739080-081 at 081.

⁵⁵ APC-00739080-081 at 081 (“Property Accounting met with the Shenandoah project team on March 21 and March 30, 2017 and discussed the negative impact of drilling results from the Shenandoah-6 well which did not encounter the oil-water contact in the eastern portion of the field. Drilling activities on the initial wellbore were terminated prior to reaching the targeted depth and subsequently diverted to a sidetrack and then to a bypass on that sidetrack, all of which indicated faulting within the reservoir which significantly reduced the recoverable resources previously estimated for the Shenandoah project. This reduction in estimated recoverable resources has indicated that a new greenfield development of the Shenandoah project would be uneconomic at current market prices.”).

⁵⁶ Anadarko Petroleum Corporation, Form 10-Q for the Quarterly Period ended March 31, 2017, filed on May 2, 2017, p. 13.

⁵⁷ Anadarko Petroleum Corporation, Form 10-Q for the Quarterly Period ended March 31, 2017, filed on May 2, 2017, pp. 12, 13, 37. See also, APC-00739080-081 at 081; Exhibit 492, KPMG_APc_eA_0009897-920 at 911; KPMG_APc_eA_0008457. The net book value of the GOM Exploration and Walker Ridge properties as of January 1, 2017 is based on the Kerr-McGee Transaction purchase price allocation. See, Anadarko Petroleum Corporation, Form 10-Q for the Quarterly Period ended March 31, 2017, filed on May 2, 2017, pp. 12, 37.

⁵⁸ Amended Complaint, ¶¶ 1, 29.

⁵⁹ Amended Complaint, ¶¶ 4, 50.

Shenandoah Project was impaired before Anadarko's decision was announced on May 2, 2017.⁶⁰ Specifically, Plaintiffs claim that Anadarko "concealed the impairment of Shenandoah even after internal assessments called into serious doubt [the] economic and/or operational viability" of the project.⁶¹

E. Overview of Regan Report

26. I understand that Mr. Regan was retained by Plaintiffs in this matter "to provide expert opinions regarding [Anadarko's] accounting for, and disclosure of, costs incurred in connection with the Company's offshore Shenandoah exploration project during the respective annual and interim financial reporting periods ended December 31, 2014 through March 31, 2017."⁶²

27. Based on his analysis as set forth in the Regan Report, Mr. Regan reached the following conclusions related to Anadarko's accounting for the Shen 3 well costs during the period from December 31, 2014 through June 30, 2016:⁶³

- "Pursuant to the 'Successful Efforts Method' of accounting for exploratory drilling costs, Anadarko was required to expense the cost of drilling Shen-3 no later than as of and for

⁶⁰ Amended Complaint, ¶¶ 82–83.

⁶¹ Amended Complaint, ¶¶ 82, 142.

⁶² Regan Report, ¶ 1 (internal definitions omitted). Mr. Regan asserts in his report that "Anadarko had recorded and reported suspended well costs and other exploration costs associated with the Shenandoah basin project on its respective balance sheets included within the Relevant Period." See, Regan Report, ¶ 35. I note that the Consolidated Balance Sheets reported by Anadarko in its Form 10-K for the fiscal years ending December 31, 2014, 2015 and 2016 do not include a separate disclosure of the "suspended well costs and other exploration costs associated with the Shenandoah basin project." See, Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 20, 2015, p. 90; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2015, filed on February 17, 2016, p. 88; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2016, filed on February 17, 2017, p. 88. Nor are these costs separately disclosed in Note 6 to Anadarko's financial statements, which provides additional information regarding "Suspended Exploratory Well Costs." While the amounts related to the Shen 3 suspended well costs were included in the amounts disclosed in Anadarko's Consolidated Balance Sheets and associated footnotes during the Class Period, they were not separately disclosed. See, Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 20, 2015, p. 103; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2015, filed on February 17, 2016, pp. 102–103; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2016, filed on February 17, 2017, pp. 103–105.

⁶³ Throughout his Report, Mr. Regan makes reference to Anadarko's accounting related to the alleged failure to expense and disclose the Shen 3 suspended well costs during the period between "December 31, 2014 and June 30, 2015." See, e.g., Regan Report, ¶¶ 11 and 37. See also, header to Section V.C of the Regan Report. However, paragraph 69 of the Regan Report states: "Anadarko's continued capitalization of Shen-3 violated GAAP. Specifically, from the financial reporting periods between December 31, 2014 and **June 30, 2016**, Anadarko improperly capitalized approximately \$63.6 million of suspended drilling costs relating to Shen-3." (emphasis added). For purposes of my analysis, I have assumed that Mr. Regan's opinion is that Anadarko inappropriately failed to expense and disclose the suspended well costs related to the Shen 3 well during the period from December 31, 2014 through June 30, 2016.

the year ended December 31, 2014, given that Shen-3 found no hydrocarbons and the wellbore's unlikely use as an injection or other service well;”⁶⁴

- “Anadarko repeatedly failed to expense and disclose millions of dollars of Shen-3 related dry-hole expenses during each of the respective annual and/or quarterly periods between December 31, 2014 and June 30, 2015, in violation of GAAP;”⁶⁵ and
- “Anadarko’s Shen-3 related accounting errors and disclosure omissions caused the Company’s financial statements to be materially misstated as of and for the annual and/or quarterly periods between December 31, 2014 and June 30, 2015.”⁶⁶

28. Mr. Regan reached the following conclusion related to Anadarko’s accounting for the Shen 3 well costs as of September 30, 2016: “Anadarko’s Q3 2016 assertion that the continued capitalization of Shen-3 prior to September 30, 2016 was acceptable because a ‘reasonable possibility’ existed that the wellbore would be used as an injection well or sidetrack well is flawed and unsupported in GAAP.”⁶⁷

29. Finally, with respect to Anadarko’s accounting for the broader Shenandoah Project, Mr. Regan reached the following conclusions:⁶⁸

- “Given that by December 31, 2015, there was substantial doubt that the Shenandoah basin project would be economically viable, Anadarko was further required to expense Shenandoah-related suspended exploration well costs and capitalized non-producing leasehold costs no later than December 31, 2015;”
- “Anadarko repeatedly failed to expense and properly disclose Shenandoah-related suspended exploration well costs and capitalized non-producing leasehold costs during each of the respective annual and/or quarterly periods between December 31, 2015 and December 31, 2016 in violation of GAAP and SEC accounting-related reporting rules;” and
- “Anadarko’s Shenandoah project-related accounting errors and disclosure omissions caused the Company’s financial statements to be materially misstated as of and for the annual and/or quarterly periods between December 31, 2015 and December 31, 2016.”

⁶⁴ Regan Report, ¶ 11 (internal footnote omitted).

⁶⁵ Regan Report, ¶ 11.

⁶⁶ Regan Report, ¶ 11.

⁶⁷ Regan Report, ¶ 11.

⁶⁸ Regan Report, ¶ 11.

30. Each of these conclusions is predicated on one or more “Conditions” that Mr. Regan assumes, for purposes of his analysis, will be proven to be true by Plaintiffs:⁶⁹

- “As of December 31, 2014 and throughout the Relevant Period, it was unlikely that the completed stratigraphic exploration well referred to as Shenandoah-3 (‘Shen-3’) would be used as an injection or other type of service well in the development phase of the Shenandoah project (‘Condition 1’);”
- “The findings of the Company’s Shen-3 exploration wellbore, together with its findings of its prior wellbores, resulted in a material reduction to the estimated possible resources within the Shenandoah field as of Anadarko’s Q4 2014 financial reporting period (‘Condition 2’); and
- “By December 31, 2015, there was substantial doubt that the Shenandoah basin project (as a whole) would be economically viable (‘Condition 3’).”

31. Should Plaintiffs fail to establish one or more of these Conditions, Mr. Regan has not stated in his report the impact on his opinions; however, Mr. Regan stated in his report that he “reserve[s] the right to change [his] opinions in the event that Conditions 1 through 3 above are modified.”⁷⁰

IV. Summary of Findings and Opinions

32. Based on my knowledge and experience, my review of the Regan Report and underlying analysis, and my analysis of other materials I have reviewed in this matter, my opinions are:

- Mr. Regan fails to acknowledge the role of professional judgment in the application of GAAP. Instead, Mr. Regan asserts that there is only one correct interpretation of GAAP when applied to the facts and circumstances arising from each of Anadarko’s exploration activities. Contrary to Mr. Regan’s analysis and conclusions, because the application of GAAP requires professional judgment, two independent accountants can evaluate the same facts and circumstances, apply the same guidance to the same set of facts and circumstances, and arrive at two different, reasonable financial reporting determinations based on their own independent evaluations of the relevant guidance and relevant facts

⁶⁹ Regan Report, ¶ 2.

⁷⁰ Regan Report, ¶ 10.

and circumstances. Mr. Regan's failure to recognize the role of professional judgment in the application of GAAP renders each of his opinions unreliable.

- Anadarko's decision to suspend the costs associated with the Shen 3 well as of December 31, 2014 was consistent with a reasonable interpretation of the relevant authoritative guidance set forth in Accounting Standards Codification Topic 932, *Extractive Activities – Oil and Gas* (“ASC 932”). Mr. Regan’s opinion that Anadarko’s accounting for the Shen 3 well costs as of December 31, 2014 violated GAAP is flawed and unreliable because it is not supported with competent and diligent analysis. Specifically, Mr. Regan’s opinions are predicated on an evaluation of superseded and non-authoritative guidance as well as an incomplete assessment of relevant GAAP. In addition, Mr. Regan’s analysis fails to evaluate the professional judgment of Anadarko financial reporting personnel, fails to assess cited evidence in a rigorous manner, and fails to address the contemporaneous conclusions of other accounting professionals. Ultimately, Mr. Regan’s opinions are predicated on assumptions that inappropriately substitute for the professional judgments of accounting professionals at Anadarko. Furthermore, these assumptions fail to establish that Anadarko was required to expense the costs associated with Shen 3 as of December 31, 2014.
- In his evaluation of Anadarko’s accounting for the Shen 3 well costs as of September 30, 2016, Mr. Regan continues to refer to superseded and non-authoritative guidance and continues to employ an incomplete assessment of relevant GAAP. In addition, the analysis supporting Mr. Regan’s opinion is deficient, biased by hindsight, is not thorough, and fails to address the contemporaneous accounting determinations of other accounting professionals. As a result, Mr. Regan fails to establish that GAAP mandated that Anadarko expense the Shen 3 well costs prior to September 30, 2016.
- Mr. Regan fails to demonstrate that the Shen 3 well costs were material to Anadarko’s financial statements. From a conceptual perspective, the framework employed by Mr. Regan to assess materiality is based on non-authoritative guidance concerning accounting misstatements. Mr. Regan’s implementation of his materiality analysis is also fundamentally flawed. Specifically, Mr. Regan’s analysis fails to incorporate reliable

data, fails to address relevant evidence, and fails to establish the relevance of the metrics it calculates.

- Anadarko's decision to impair the Shenandoah Project as of March 31, 2017 was consistent with GAAP. Mr. Regan's opinion that the Shenandoah Project should have been impaired as of December 31, 2015 is biased by hindsight, improperly interprets or ignores relevant information, and fails to address the contemporaneous conclusions of other accounting professionals. Ultimately, Mr. Regan's opinion is predicated on an assumption that inappropriately substitutes for relevant facts and circumstances, and for the professional judgments of accounting professionals at Anadarko. His opinion also is inconsistent with a thorough evaluation of the evidence produced in this matter.

V. Overview of Relevant Accounting Standards

A. The Financial Accounting and Reporting Environment

33. As described in more detail below, public companies in the United States operate in a financial accounting and reporting environment that includes: 1) company management; 2) independent public accounting firms that serve as auditors; 3) regulators that provide guidance and oversight such as the SEC and the PCAOB; and 4) the Financial Accounting Standards Board (“FASB”), the standard setting organization that has primary responsibility for establishing and maintaining GAAP. Collectively, these organizations aim to provide meaningful financial information to investors and others.

34. Management is responsible for preparing financial statements.⁷¹ In preparing financial statements, management is required to follow authoritative accounting standards, referred to as GAAP.⁷² GAAP is a set of standards and procedures that guide companies in preparing financial statements so that all public companies follow similar procedures in preparing their statements.⁷³ Simultaneously, GAAP assists users of financial information by providing a consistent framework for reading and interpreting financial statements.⁷⁴

⁷¹ AU Section 110, *Responsibilities and Functions of the Independent Auditor* (“PCAOB Interim Standard AU Section 110”).03.

⁷² ASC 105-10-10-1.

⁷³ Financial Accounting Standards Board (“FASB”), “Rules of Procedure,” p. 3.

⁷⁴ FASB, “Rules of Procedure,” pp. 2–3.

35. Public companies are required to have their annual financial statements audited by an independent public accounting firm that, in this role, is referred to as an “auditor.”⁷⁵ At the conclusion of an audit, the auditor expresses an opinion as to whether the financial statements are presented fairly, in all material respects, in conformity with GAAP.⁷⁶ Public companies are also required to have their quarterly financial statements reviewed by an independent auditor.⁷⁷ In connection with a quarterly review, the auditor determines whether there are material modifications that should be made to the quarterly financial statements to conform with GAAP.⁷⁸

36. The SEC is a regulatory body with a “mission of protecting investors, maintaining fair, orderly, and efficient markets, and facilitating capital formation.”⁷⁹ All publicly traded companies in the U.S. (referred to generally as “reporting entities” or “SEC registrants”) are required to file periodic financial statements, as well as other financial information, with the SEC.⁸⁰ The SEC provides regulations that reporting entities must comply with, including the requirement that all public company financial statements be prepared in conformity with GAAP.⁸¹ The SEC includes several divisions, including the Division of Corporation Finance, which reviews annual and quarterly filings of public companies, and the Division of Enforcement, which has the authority to investigate and discipline companies, management and independent auditors.⁸²

37. The PCAOB is a regulatory body that sets guidance for auditors and oversees the practice of auditing.⁸³ The PCAOB’s mission is to “regulate[] the audits of public companies and SEC-registered brokers and dealers in order to protect investors and further the public interest in the preparation of informative, accurate, and independent audit reports.”⁸⁴ The PCAOB establishes

⁷⁵ U.S. Securities and Exchange Commission (“SEC”), “All About Auditors: What Investors Need to Know,” June 24, 2002, available at <https://www.sec.gov/reportspubs/investor-publications/investorpubsaboutauditors#>.

⁷⁶ PCAOB Interim Standard AU Section 110.01.

⁷⁷ AU Section 722, *Interim Financial Information* (“PCAOB Interim Standard AU Section 722”).03.

⁷⁸ PCAOB Interim Standard AU Section 722.07.

⁷⁹ SEC, “What We Do,” available at <https://www.sec.gov/about/what-we-do>.

⁸⁰ SEC, “All About Auditors: What Investors Need to Know,” June 24, 2002, available at <https://www.sec.gov/reportspubs/investor-publications/investorpubsaboutauditors#>; SEC, “What We Do,” available at <https://www.sec.gov/about/what-we-do>.

⁸¹ SEC, “All About Auditors: What Investors Need to Know,” June 24, 2002, available at <https://www.sec.gov/reportspubs/investor-publications/investorpubsaboutauditors#>.

⁸² SEC, “Filing Review Process,” available at <https://www.sec.gov/divisions/corpfin/cffilingreview>; SEC, “Division of Enforcement,” available at <https://www.sec.gov/page/enforcement-section-landing>.

⁸³ PCAOB, “About,” available at <https://pcaobus.org/about>.

⁸⁴ PCAOB, “Mission, Vision, and Values,” available at <https://pcaobus.org/about/mission-vision-values>.

standards that the independent auditor must follow when auditing financial statements of public companies.⁸⁵ The PCAOB also conducts inspections of independent auditors and has the authority to investigate and discipline independent auditors.⁸⁶

B. Generally Accepted Accounting Principles

38. Since September 2009, the Accounting Standards Codification (“Codification”) is “the source of authoritative generally accepted accounting principles (GAAP) recognized by the FASB to be applied to nongovernmental entities.”⁸⁷ In addition, the Codification recognizes “[r]ules and interpretive releases of the Securities and Exchange Commission (SEC) under authority of federal securities laws [as] sources of authoritative GAAP for SEC registrants.”⁸⁸ It is important to note that Staff Accounting Bulletins (“SABs”) are not rules or interpretive releases of the SEC.⁸⁹ For example, SEC Staff Accounting Bulletin No. 99, *Materiality* (“SAB 99”), published on August 12, 1999, specifically states that “[t]he statements in the staff accounting bulletins are not rules or interpretations of the Commission, nor are they published as bearing the Commission’s official approval.”⁹⁰ Therefore, SABs are not authoritative. The FASB also does not recognize Statements of Financial Accounting Standards that it issued prior to the creation of the Codification (such as Statement of Financial Accounting Standards No. 19, *Financial Accounting and Reporting by Oil and Gas Producing Companies* (“FAS 19”) issued in December 1977), as authoritative, and instead lists them on its website as “superseded

⁸⁵ PCAOB, “Standards,” available at <https://pcaobus.org/oversight/standards>.

⁸⁶ PCAOB, “Basics of Inspections,” available at <https://pcaobus.org/oversight/inspections/basics-of-inspections>; PCAOB, “Enforcement,” available at <https://pcaobus.org/oversight/enforcement>.

⁸⁷ ASC 105-10-05-1. The Codification is effective for interim and annual periods ending after September 15, 2009. See, Financial Accounting Foundation, “FASB Accounting Standards Codification – About the Codification,” p. 4 (“The Codification is effective for interim and annual periods ending after September 15, 2009. All previous level (a)-(d) US GAAP standards issued by a standard setter are superseded. Level (a)-(d) US GAAP refers to the previous accounting hierarchy. All other accounting literature not included in the Codification will be considered nonauthoritative. See Codification Topic 105, Generally Accepted Accounting Principles, for additional details.”).

⁸⁸ ASC 105-10-05-1.

⁸⁹ The Codification distinguishes SEC Rules and interpretive releases from Staff Accounting Bulletins. It notes that “Rules and interpretive releases of the Securities and Exchange Commission (SEC) under authority of federal securities laws are also sources of authoritative GAAP for SEC Registrants. In addition to the SEC’s rules and interpretive releases, the SEC staff issues Staff Accounting Bulletins that represent practices followed by the staff in administering SEC disclosure requirements...” See, ASC 105-10-05-1.

⁹⁰ SEC Staff Accounting Bulletin No. 99 – Materiality, dated August 12, 1999 (“SAB 99”).

standards.”⁹¹ Specifically, all non-grandfathered, non-SEC accounting guidance that is not included in the Codification is “superseded and deemed nonauthoritative.”⁹²

39. Therefore, any analysis of whether Anadarko’s accounting treatment for certain well costs and periodic assessments of non-producing leasehold properties for impairment related to the Shenandoah Project was in conformity with GAAP must be based on the guidance set forth in the Codification. To provide a consistent financial reporting framework, the Codification provides guidance on how to account for certain transactions and events.⁹³ Where the Codification provides direct and applicable guidance, the guidance in the Codification is considered “authoritative.”⁹⁴

40. The FASB sets accounting standards, and thereby revises the Codification, through a “comprehensive and independent process that encourages broad participation, objectively considers all stakeholder views, and is subject to oversight by the Financial Accounting Foundation’s Board of Trustees.”⁹⁵ This process includes: conducting research, deliberating at public meetings, issuing documents for public comment, and re-deliberating based on comments and research.⁹⁶ The FASB also educates those involved in financial reporting and monitors the implementation of its standards.⁹⁷ Because the Codification is not static, a proper analysis of Anadarko’s accounting must refer to GAAP that was applicable when Anadarko prepared its financial statements rather than GAAP in effect at an earlier or later period. In this Section, I cite guidance in the Codification that was in effect throughout the Class Period and at all times relevant to the accounting addressed in this report.

⁹¹ FASB, “Superseded Standards,” available at <https://fasb.org/page/PageContent?pageId=/reference-library/superseded-standards.html>.

⁹² ASC 105-10-05-5.

⁹³ ASC 105-10-05-2.

⁹⁴ Accounting literature is categorized into two levels of hierarchy: 1) authoritative, and 2) nonauthoritative. ASC 105 establishes the Codification as the source of authoritative GAAP recognized by the FASB. The SEC’s rules and interpretive releases under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants. See, ASC 105-10-05-1. Accounting and financial reporting guidance that is not included in the Codification is nonauthoritative. Sources of nonauthoritative accounting guidance and literature include FASB Concepts Statements and accounting textbooks, among others. See, ASC 105-10-05-3.

⁹⁵ FASB, “Standard-Setting Process,” available at <https://www.fasb.org/Page/PageContent?PageId=/about-us/standardsettingprocess.html&isstaticpage=true&bcpPath=tff>.

⁹⁶ FASB, “Standard-Setting Process,” available at <https://www.fasb.org/Page/PageContent?PageId=/about-us/standardsettingprocess.html&isstaticpage=true&bcpPath=tff>.

⁹⁷ FASB, “Standard-Setting Process,” available at <https://www.fasb.org/Page/PageContent?PageId=/about-us/standardsettingprocess.html&isstaticpage=true&bcpPath=tff>.

41. The FASB has recognized that the application of GAAP requires considerable professional judgment and often requires a company's management to exercise discretion when preparing financial statements.⁹⁸ There are several features of financial reporting that necessitate the use of professional judgment. First, not every transaction or event is addressed directly in GAAP. While a large body of authoritative literature has been developed over time to establish appropriate accounting guidance for transactions and events, GAAP does not directly address all situations. Where the Codification does not provide applicable guidance directly, the Codification describes additional steps to determine how to account for such transactions or events. If the guidance for a transaction or event is not specified within a source of authoritative GAAP for that entity, the Codification states that "an entity shall first consider accounting principles for similar transactions or events within a source of authoritative GAAP for that entity."⁹⁹ Second, there are numerous choices that accountants must make in applying GAAP because it often provides guiding principles rather than specific rules, instructions, or detailed procedures. As recognized by the FASB, "[t]hose who are unfamiliar with the nature of accounting are often surprised at the large number of choices that accountants are required to make. Yet choices arise at every turn."¹⁰⁰ As a result, significant professional judgment may be required to interpret and implement the guidance set forth in GAAP.

42. In exercising professional judgment, management must be careful to make decisions "based on a critical and reasoned evaluation made in good faith and in a rigorous, thoughtful, and deliberate manner."¹⁰¹ In addition, the reasonableness of professional judgment exercised must be evaluated based on the relevant facts and circumstances that were reasonably available to management at the time, rather than information that became available after the fact (*i.e.*, in hindsight).¹⁰² Management should also demonstrate professional due care in exercising

⁹⁸ Statement of Financial Accounting Concepts No. 8 ("SFAC No. 8"), *Chapter 1, The Objective of General Purpose Financial Reporting*, ¶ OB11 ("To a large extent, financial reports are based on estimates, judgments, and models rather than exact depictions. The Conceptual Framework establishes the concepts that underlie those estimates, judgments, and models."). See also, SEC Advisory Committee on Improvements to Financial Reporting, "Final Report of the Advisory Committee on Improvements to Financial Reporting to the United States Securities and Exchange Commission," August 1, 2008 ("CIFR Report"), p. 7 ("The preparation and audit of financial statements have always required the exercise of judgment.").

⁹⁹ ASC 105-10-05-2.

¹⁰⁰ Statement of Financial Accounting Concepts No. 2, *Qualitative Characteristics of Accounting Information* ("SFAC No. 2"), ¶ 8.

¹⁰¹ CIFR Report, p. 94.

¹⁰² CIFR Report, p. 91 ("The use of hindsight to evaluate a judgment where the relevant facts were not available at the time of the initial release of the financial statements (including interim financial statements) is not appropriate.").

professional judgment when applying GAAP by gathering available relevant facts prior to making the judgment.¹⁰³

43. As a result, in exercising professional judgment, similarly situated professionals may reasonably reach different conclusions about the substantive nature of transactions and the related appropriate financial accounting and reporting practices under GAAP for the same transactions and/or events, while those differing conclusions may nevertheless be supportable, reasonable, and acceptable under GAAP.¹⁰⁴

C. Relevant Accounting Standards for Companies in the Oil and Gas Industry

44. The authoritative GAAP guidance relating to the accounting for oil and gas producing activities is organized as ASC 932.¹⁰⁵ ASC 932 governs accounting for all exploration and development activities, including onshore, offshore, and deepwater activities. ASC 932, Subtopic 360 (“ASC 932-360”) addresses the accounting for industry-specific property, plant, and equipment in the oil and gas industry.¹⁰⁶

45. The SEC permits reporting entities engaged in oil- and gas-producing activities to choose between two methods to account for their exploration and production operations: 1) the successful efforts method; or 2) the full cost method. The method chosen dictates the authoritative guidance to be used for capitalization and expensing of exploration and development costs. Reporting entities such as Anadarko that choose to follow the successful

¹⁰³ CIFR Report, pp. 91, 94, fn. 157.

¹⁰⁴ CIFR Report, p. 93 (“Judgment, with respect to accounting matters, should be exercised by a person or persons who have the appropriate level of knowledge, experience, and objectivity to form an opinion based on the relevant facts and circumstances within the context provided by applicable accounting standards. Judgments could differ between knowledgeable, experienced, and objective persons.”).

¹⁰⁵ Oil and gas producing activities, defined in ASC 932-360, include the “search for crude oil, including condensate and natural gas liquids, or natural gas in their natural states and original locations.” See, ASC 932-10-15-2A. The FASB updates the Codification to make substantive or technical changes. For a proper analysis of Anadarko’s accounting for transactions and events examined in the Regan Report, it is critically important to refer to GAAP that Anadarko was required to use at the time it prepared its financial statements rather than GAAP that is currently in effect. Throughout my Report, I cite guidance in the Codification that was in effect at times relevant to the accounting issues in this matter. Because the focus properly is on GAAP at that time, I employ present tense (*e.g.*, “GAAP provides”) rather than past tense (*e.g.*, “GAAP provided”). Thus, a statement that “GAAP provides” should not be interpreted to imply that the quotation appears in the Codification currently, but rather that it appeared in the Codification at times relevant to the proper analysis of the accounting issues addressed.

¹⁰⁶ ASC 932-360-05-1.

efforts method must comply with the accounting and financial reporting disclosure requirements set forth in ASC 932.¹⁰⁷

1. Development of Accounting Standards Relevant to Oil and Gas Exploration and Development

46. Before summarizing the portions of the Codification relevant to the accounting determinations reached by Anadarko at issue in this matter, it is instructive to understand the evolution of accounting guidance related to oil and gas exploration and development, and in particular, how this guidance has both evolved in some respects and failed to evolve in other respects over time in response to the rapid development in technology and techniques employed by firms engaged in oil and gas exploration and development.

47. In the 1960s, prior to the development of the first deepwater well in the Gulf of Mexico, small- and medium-sized exploration firms embraced the full-cost accounting approach because it typically resulted in higher reported profitability for these firms than what would otherwise be reported under the successful efforts method.¹⁰⁸ It is my understanding that the higher reported profitability was asserted to enhance the exploration firms' ability to attract capital and expand higher risk exploration efforts outside of areas that had already been developed by larger exploration and development firms.

48. In July 1977, the FASB published an exposure draft that would have mandated that all oil and gas companies employ the successful efforts method of accounting.¹⁰⁹ I understand that such a transition was asserted to severely curtail the ability of smaller independent exploration firms to continue higher-risk exploration at a time when energy prices were elevated. In response to

¹⁰⁷ The comprehensive standard for the full cost method is set forth in SEC Regulation S-X Rule 4-10, which is included in the Codification at ASC 932-10-S99. The full cost method typically is employed by small and medium-sized oil and gas companies. The full cost method is generally less complex to implement than the successful efforts method. See, Brady, Jennings, and Shappard, "Petroleum Accounting: Principles, Procedures and Issues," PwC, 8th Edition, p. 50.

¹⁰⁸ AICPA, "Audit and Accounting Guides: Entities with Oil and Gas Producing Activities – Clarified," August 1, 2018, p. 18. In 1975, the first deepwater well was drilled in Mississippi Canyon Block 194 in 1,022 feet of water, resulting in the Cognac discovery. See, Bureau of Ocean Energy Management, U.S. Department of the Interior, "Deepwater Gulf of Mexico," December 31, 2019, p. 6.

¹⁰⁹ Brady, Jennings, and Shappard, "Petroleum Accounting: Principles, Procedures and Issues," PwC, 8th Edition, p. 50. In December 1977, the FASB issued Statement of Financial Accounting Standards No. 19, *Financial Accounting and Reporting for Oil and Gas Producing Companies* ("FAS 19"). See, FAS 19.

significant pressure from these industry participants, the SEC abandoned the FASB's proposal and effectively retained the two-approach reporting regime.¹¹⁰

49. Authoritative guidance has continued to evolve in response to developments in the oil and gas industry. For example, in January 2010, the FASB issued an Accounting Standards Update, in which it noted that, in the three decades since the FASB had issued financial reporting guidance to the oil and gas industry, the industry had experienced "significant changes" and that the updates were intended to "modernize and update the oil and gas disclosure requirements [and related definitions] to align them with current practices and changes in technology."¹¹¹

50. The evolution of authoritative accounting guidance throughout the 20th century and into the 21st century underscores the extent to which at times guidance lags the development of industry practices and technology. As a result, industry participants are required to exercise professional judgement when they apply accounting guidance that does not precisely address the evolving practices of the industry.

2. Accounting Standards Applicable to Capitalization of Costs for Shenandoah Appraisal Wells

51. Starting in 2007 and continuing throughout the duration of the Shenandoah Project, Anadarko followed the successful efforts method of accounting.¹¹² Under the successful efforts method of accounting, "[o]nly those exploration costs and development costs that relate directly to specific oil and gas reserves are capitalized; costs that do not relate directly to specific reserves are charged to expense."¹¹³ ASC 932-360 acknowledges that the successful efforts

¹¹⁰ Brady, Jennings, and Shappard, "Petroleum Accounting: Principles, Procedures and Issues," PwC, 8th Edition, pp. 50–51.

¹¹¹ Accounting Standards Update No. 2010-03, p. 1.

¹¹² Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2007, filed on February 29, 2008, p. 2; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2008, filed on February 25, 2009, p. 60; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2009, filed on February 23, 2010, p. 55; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2010, filed on February 23, 2011, p. 74; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2011, filed on February 21, 2012, p. 75; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2012, filed on February 19, 2013, p. 81; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2013, filed on February 28, 2014, p. 80; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 20, 2015, p. 95; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2015, filed on February 17, 2016, p. 93; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2016, filed on February 17, 2017, p. 93; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2017, filed on February 15, 2018, p. 97.

¹¹³ ASC 932-360-25-3.

method of accounting “conforms to the traditional concept of the historical cost of an asset.”¹¹⁴ Per ASC 932-360, under the successful efforts method, certain types of costs may be initially capitalized (*i.e.*, suspended) as construction-in-progress (referred to within Anadarko as “assets under construction” or “AUC”) pending further information about the existence of future benefits.¹¹⁵ However, as soon as the additional information becomes available and it is known whether future benefits exist, those suspended costs are either reclassified as an amortizable asset or charged to expense.¹¹⁶

52. Per ASC 932-360, the “expected future benefits” that an entity in the oil and gas industry is attempting to obtain through its acquisition, exploration, and development activities are oil and gas reserves.¹¹⁷ Reserves are defined as “estimated remaining quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations.”¹¹⁸ In this context, the term “economically producible” means hydrocarbon resources that can generate revenue “that exceeds, or is reasonably expected to exceed, the costs of the operation.”¹¹⁹ Entities in the oil and gas industry generally do not acquire reserves from properties that they own. Instead, they acquire oil and gas leases from the owner of the land (or territory) where the oil and gas deposits are located.¹²⁰ Within U.S. territorial waters (such as the GOM), oil and gas operators can acquire mineral leases from either state or federal governments.¹²¹ In the case of the deepwater GOM exploration and production relevant to the Shenandoah Project, the properties were leased to Anadarko and its partners by the federal government.¹²²

53. Accounting for deepwater appraisal projects like Shenandoah is complicated by the fact that many of the unique aspects of deepwater appraisal are not covered directly by ASC 932—which governs accounting for all exploration and development activities, including onshore,

¹¹⁴ ASC 932-360-25-3.

¹¹⁵ ASC 932-360-25-3.

¹¹⁶ ASC 932-360-25-3.

¹¹⁷ ASC 932-360-25-5.

¹¹⁸ ASC 932-360-20.

¹¹⁹ ASC 932-360-20.

¹²⁰ ASC 932-360-25-5; Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 94.

¹²¹ Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 452. In the GOM, state ownership extends for nine miles from shore while the federal government controls the leasing rights beyond that.

¹²² Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2006, filed on February 28, 2007, pp. 2, 108.

offshore and deepwater activities. For instance, while multiple appraisal wells are almost always required to appraise deepwater discoveries like Shenandoah, ASC 932-360 does not specifically provide guidance for “appraisal wells.” Indeed, the term “appraisal well” does not appear in the Codification.

54. Rather, ASC 932-360 sets forth guidance for “stratigraphic test wells,” which are defined as “a drilling effort, geologically directed, to obtain information pertaining to a specific geologic condition.”¹²³ According to ASC 932-360, stratigraphic test wells are normally drilled without the intention of being completed for hydrocarbon production and are customarily abandoned after drilling is completed and the information is obtained.¹²⁴ Stratigraphic test wells are generally drilled offshore to determine “whether an offshore property contains sufficient reserves to justify the cost of constructing and installing a production platform and to determine where to locate such a platform.”¹²⁵ Stratigraphic test wells are classified as exploratory-type if not drilled in a proved area or as development-type if drilled in a proved area.¹²⁶

55. The accounting standards for exploratory-type stratigraphic test wells mirror the accounting for exploratory wells.¹²⁷ An exploratory well is defined as “a well drilled to find a new field or to find a new reservoir in a field previously found to be productive of oil or gas in another reservoir.”¹²⁸ For example, the Shen 1 discovery well meets the definition of an exploratory well per ASC 932-360. ASC 932-360 requires entities to suspend the costs of drilling exploratory wells as part of the entity’s in-progress assets (*i.e.*, not subject to depreciation) pending determination of whether proved reserves are found.¹²⁹ Proved oil and gas reserves are defined as “quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating

¹²³ ASC 932-360-20.

¹²⁴ ASC 932-360-25-17.

¹²⁵ ASC 932-360-25-17.

¹²⁶ ASC 932-360-20. The Codification defines “proved area” as “the part of a property to which proved reserves have been specifically attributed.” “Proved oil and gas reserves” are defined by the Codification as “those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulation before the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether the estimate is a deterministic estimate or probabilistic estimate. [...].” See, ASC 932-360-20.

¹²⁷ ASC 932-360-25-18.

¹²⁸ ASC 932-10-S99-1.

¹²⁹ ASC 932-360-25-10.

methods, and government regulation before the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether the estimate is a deterministic estimate or probabilistic estimate.”¹³⁰

56. As described above, under the successful efforts method, only exploration costs that relate directly to specific proved oil and gas reserves can be capitalized.¹³¹ In other words, ASC 932-360 allows entities to initially suspend exploration costs, such as the costs of drilling wells, while it determines whether the well has encountered quantities of oil and gas that can be estimated with reasonable certainty to be economically producible.¹³² Therefore, the costs of drilling exploratory-type stratigraphic test wells are capitalized pending determination of whether proved reserves are found.¹³³

57. The amount of time required to determine whether proved reserves are found can be long, particularly in deepwater offshore operations where multiple appraisal wells are needed to evaluate the size and extent of the field (*i.e.*, the estimated amount of resources) as well as how to best recover or extract those resources from the field.¹³⁴ ASC 932-360 acknowledges that for the purpose of determining whether suspended drilling costs can continue to be capitalized pending the determination of proved reserves, a project “may include more than one exploratory well or exploratory-type stratigraphic well if the reserves are intended to be extracted in a single, integrated producing operation (for example, the producing wells will operate with shared infrastructure.”¹³⁵ Therefore, ASC 932-360 sets forth two criteria for assessing whether the costs of drilling exploratory-type stratigraphic test wells can continue to be carried as assets (*i.e.*, suspended) pending determination of whether proved reserves are found: 1) the quantity of reserves found must justify completion of the well for production had it not been simply a stratigraphic test well (the “Sufficient Quantity” criterion); and 2) the entity must be making

¹³⁰ ASC 932-360-20.

¹³¹ ASC 932-360-25-3.

¹³² ASC 932-360-25-10.

¹³³ ASC 932-360-25-18; ASC 932-360-25-10; ASC 932-360-20.

¹³⁴ The FASB has acknowledged that circumstances faced by oil and gas producing companies have evolved and that exploration activities “are frequently performed in more remote areas, to greater depths, and in more complex geological formations” than the exploration activities that occurred when the FASB first issued accounting standards for oil and gas companies in 1977. See, FAS 19. In particular, the originally issued guidance included a provision that stated that the costs of drilling certain exploratory wells cannot be capitalized for longer than one year (*i.e.*, a one-year capitalization period). The FASB subsequently amended the guidance to clarify that the amount of time required to determine whether proved reserves are found is not limited to a one year period. See, FASB Staff Position No. FAS 19-1.

¹³⁵ ASC 932-360-35-18.

“sufficient progress” on assessing the reserves and the economic and operating viability of the project (the “Sufficient Progress” criterion).¹³⁶ When the outcome of the drilling effort is determined, the costs will be re-classified as an asset (subject to depreciation) if proved reserves are found or as an expense if proved reserves are not found.¹³⁷

58. ASC 932-360 also provides guidance for evaluating whether an entity is making “sufficient progress” in assessing the reserves and the economic and operating viability of the project. ASC 932-360 states that “all relevant facts and circumstances” must be taken into account and evaluated as a whole, and that no single factor is determinative.¹³⁸ ASC 932-360 provides several indicators that an entity is making sufficient progress, including:

- a. Commitment of project personnel who are at the appropriate levels and who have the appropriate skills;
- b. Costs that are being incurred to assess the reserves and their potential development;
- c. An assessment process covering the economic, legal, political, and environmental aspects of the potential development is in progress;
- d. Existence (or active negotiations) of agreements with governments, lenders, and venture partners; and
- e. Existence of firm plans, established timetables, or contractual commitments, which may include seismic testing and drilling of additional exploratory wells.¹³⁹

59. ASC 932-360 states that if an entity does not meet the Sufficient Progress criterion or it obtains information that raises substantial doubt about the economic or operational viability of the project, “the exploratory well or exploratory-type stratigraphic well shall be assumed to be impaired and its costs, net of any salvage value, shall be charged to expense.”¹⁴⁰

¹³⁶ ASC 932-360-25-18; ASC 932-360-35-18.

¹³⁷ ASC 932-360-35-6; ASC 932-360-35-13; ASC 932-360-35-17.

¹³⁸ ASC 932-360-35-19.

¹³⁹ ASC 932-360-35-19.

¹⁴⁰ ASC 932-360-35-13. While the term “substantial doubt” is not specifically defined in the Codification, the term “substantial doubt about an entity’s ability to continue as a going concern” is defined as “exist[ing] when conditions and events, considered in the aggregate, indicate that it is probable that the entity will be unable to meet its obligations as they become due within one year after the date that the financial statements are issued (or within one year after the date that the financial statements are available to be issued when applicable).” See, FASB, Master Glossary, “Substantial Doubt about an Entity’s Ability to Continue as a Going Concern.”

3. Accounting Standards Applicable to the Impairment of the Shenandoah Project

60. According to ASC 932-360, the impairment assessment of oil and gas producing properties is typically performed on a “field-by-field basis” or “by logical grouping of assets if there is a significant shared infrastructure” (*e.g.*, a platform).¹⁴¹ ASC 932-360 requires entities to periodically assess “unproved properties” (*i.e.*, “properties with no proved reserves”) to determine whether they have been impaired.¹⁴² In addition, ASC 932-360 provides that the impairment assessment must be based on the carrying amount of the asset (or asset group) at the date it is tested for recoverability, and the impairment loss is measured as the amount by which the carrying amount of a long-lived asset (asset group) exceeds its fair value.¹⁴³ If the result of the assessment indicates that the property is impaired, ASC 932-360 requires the entity to recognize the loss by providing a valuation allowance.¹⁴⁴

61. In addition, when an unproved property is surrendered, abandoned, or otherwise deemed worthless, ASC 932-360 requires the entity to charge the “capitalized acquisition costs relating thereto . . . against the related allowance for impairment to the extent an allowance has been provided; if the allowance previously provided is inadequate, a loss shall be recognized.”¹⁴⁵

62. As described above, ASC 932-360 also includes guidance specific to the assessment of “completed exploratory wells” for potential impairment (as opposed to assessment of the broader field for impairment, which is covered by the guidance contained in ASC 932-360-35-8 and 9). Specifically, ASC 932-360-35-13 establishes that a completed exploratory-type stratigraphic well should be assumed to be impaired under two scenarios: 1) the Sufficient Progress criterion is no longer met; or 2) the entity obtains information that raises substantial doubt about the economic or operational viability of the project.¹⁴⁶

¹⁴¹ ASC 932-360-35-8.

¹⁴² ASC 932-360-35-11. Unproved properties are defined as “properties with no proved reserves.” See, ASC 932-360-20.

¹⁴³ ASC 932-360-35-8. ASC 932-360 indicates that for individual unproved properties whose acquisition costs are relatively significant, impairment shall be assessed on a property-by-property basis. See, ASC 932-360-35-11. The carrying amount (also referred to as the book value) is the amount of an item as recorded in the entity’s accounting records and reported in its financial statements. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See, FASB, Master Glossary, “Fair Value.”

¹⁴⁴ ASC 932-360-35-11.

¹⁴⁵ ASC 932-360-40-1.

¹⁴⁶ ASC 932-360-35-13.

VI. Mr. Regan's Opinions Are Deeply Flawed Because They Disregard Professional Judgment and Presume that There Is Only One Interpretation or Application of GAAP

63. As described in Section V.B, the application of GAAP often requires the application of significant professional judgment and, as a result, two different accountants may reach different conclusions regarding how to account for the same transaction, both of which represent reasonable interpretations of GAAP. As described in more detail below, this fact has been recognized by standard setters, yet Mr. Regan completely disregards this and instead asserts that his interpretation of the guidance contained in ASC 932-360 is the only correct interpretation.¹⁴⁷ Because he disregards other acceptable interpretations of GAAP, Mr. Regan fails to perform a reliable analysis of Anadarko's accounting determination, rendering his conclusions unreliable.

64. Staff from the SEC have recognized the necessity of applying professional judgment when arriving at GAAP financial reporting determinations. For example, in a December 2006 speech, the Deputy Chief Accountant of the SEC noted “there are plenty of places where the accounting literature calls for the consideration of subjective factors” and stated:

“When the literature says to use a best estimate, or to consider available information, or to assess the likelihood of something occurring, those are all cues to evaluate the information and use judgment, and we must all be comfortable with that. And perhaps most importantly, when a transaction arises for which the literature is unclear, which is bound to happen time and time again, the application of good professional judgment is needed to determine an appropriate accounting model.”¹⁴⁸

65. In July 2007, the SEC chartered the Advisory Committee on Improvements to Financial Reporting (“CIFR Committee”) with a mandate “to examine the U.S. financial reporting system in order to make recommendations intended to increase the usefulness of financial information to investors, while reducing the complexity of the financial reporting system to investors, preparers, and auditors.”¹⁴⁹ The CIFR Committee’s final report (“CIFR Report”) included several important considerations for those who evaluate financial statements, including:

¹⁴⁷ Deposition of D. Paul Regan, January 20, 2023 (“Regan Deposition”), pp. 63:1–65:6. See also, Regan Report, ¶¶ 11, 37.

¹⁴⁸ SEC, “Speech by SEC Staff: Remarks Before the 2006 AICPA National Conference on Current SEC and PCAOB Developments by Scott A. Taub,” available at <https://www.sec.gov/news/speech/2006/spch121106sat.htm>.

¹⁴⁹ CIFR Report, p. 1.

- In exercising accounting judgment, accountants must be careful to make decisions “based on a critical and reasoned evaluation made in good faith and in a rigorous, thoughtful, and deliberate manner.”¹⁵⁰
- “The use of hindsight to evaluate a judgment where the relevant facts were not available at the time of the initial release of the financial statements (including interim financial statements) is not appropriate. Determining at what point the relevant facts were known to management, or should have been known, can be difficult, particularly for regulators who are often evaluating these circumstances after substantial time has passed. Therefore, hindsight should be based only on the facts reasonably available at the time the relevant annual or interim financial statements were issued.”¹⁵¹
- “We believe that those making a judgment should be expected to exercise due care in gathering all of the relevant facts prior to making the judgment.”¹⁵²

66. The CIFR Report also describes factors to consider when evaluating the reasonableness of a judgment. Factors include the following:

- The preparer’s analysis of the transaction, including the substance and business purpose of the transaction;
- The material facts reasonably available at the time that the financial statements are issued;
- The preparer’s review and analysis of relevant literature, including the relevant underlying principles;
- The level of input from people with an appropriate level of professional expertise;^[a]
- The preparer’s consideration of known diversity in practice regarding the alternatives or estimates;^[b]
- The preparer’s consistency of application of alternatives or estimates to similar transactions.¹⁵³

¹⁵⁰ CIFR Report, p. 94.

¹⁵¹ CIFR Report, p. 91 (italics in original, footnotes omitted).

¹⁵² CIFR Report, pp. 91, 94, fn. 157.

¹⁵³ CIFR Report, pp. 94–95 (embedded footnotes re-labeled [a] and [b] for clarity).

[a] In many cases, input from professional experts would include consultation with a preparer's independent auditors or other competent external parties, such as valuation specialist, actuaries, or counsel.

[b] If there is little diversity in practice, it would be significantly harder to select a different alternative.

67. The attributes of a critical and reasoned analysis, as set forth in the CIFR Report, are mirrored in the guidance issued by the AICPA related to the responsibilities of members when performing forensic investigations. Specifically, these guidelines establish that members must “[e]xercise due professional care in the performance of professional services.”¹⁵⁴ In its discussion of “due care,” the AICPA states that members must “discharge [their] professional responsibilities with competence and diligence.”¹⁵⁵ The AICPA Code of Professional Conduct defines “competence” as “the attainment and maintenance of a level of understanding and knowledge that enables a member to render services with facility and acumen” and diligence as “the responsibility to render services promptly and carefully, to be thorough, and to observe applicable technical and ethical standards.”¹⁵⁶ Mr. Regan states that his report was prepared in accordance with these standards.¹⁵⁷

68. At deposition, Mr. Regan acknowledged the role of professional judgement that is inherent in applying accounting guidance. Specifically, Mr. Regan testified that the application of GAAP requires professional judgment, both in the interpretation of the relevant GAAP guidance as well as in the interpretation of the facts and circumstances to which this guidance is being applied.¹⁵⁸

69. Despite recognizing the role of professional judgment, Mr. Regan fails to evaluate the professional judgment of Anadarko financial reporting personnel and, therefore, failed to perform a competent and diligent analysis of Anadarko’s accounting determinations. As described in more detail in the following sections, Mr. Regan’s analysis fails to address Anadarko’s review and analysis of ASC 932-360, input from other parties with expertise in

¹⁵⁴ AICPA, “Statement on Standards for Forensic Services,” ¶ 6.

¹⁵⁵ AICPA, “Code of Professional Conduct,” § 0.300.060.

¹⁵⁶ AICPA, “Code of Professional Conduct,” § 0.300.060.

¹⁵⁷ Regan Report, ¶ 4.

¹⁵⁸ Regan Deposition, pp. 46:25–49:10.

financial reporting and GAAP, known diversity in practice, and Anadarko's consistency of application to similar transactions.¹⁵⁹

70. Instead of performing such an analysis, Mr. Regan asserts that his interpretation of relevant GAAP (*i.e.*, ASC 932-360) and the related facts and circumstances is the only correct interpretation.¹⁶⁰ This approach is not only inconsistent with the hallmarks of a competent and diligent analysis, but also with the fundamental tenets of GAAP itself. Therefore, Mr. Regan's analysis is fundamentally flawed and his conclusions are unreliable.

VII. Mr. Regan's Opinion that GAAP Required Anadarko to Expense the Cost of Drilling Shen 3 as of December 31, 2014 Is Flawed and Unreliable

71. Mr. Regan opines that "Anadarko was required to expense the cost of drilling Shen-3 no later than as of and for the year ended December 31, 2014"¹⁶¹ and that, as a result, "Anadarko repeatedly failed to expense and disclose millions of dollars of Shen-3 related dry-hole expenses during each of the respective annual and/or quarterly periods between December 31, 2014 and June 30, 2015, in violation of GAAP."¹⁶² I disagree with each of these opinions.

72. For each of these opinions, as demonstrated below, Mr. Regan does not evaluate whether GAAP provides more than one reasonable interpretation as applied to the relevant facts and circumstances. His opinions therefore derive from a flawed analysis of the evidence produced in this matter. As a result, each of these opinions is flawed and unreliable. Contrary to Mr. Regan's opinions, my review of the evidence produced in this matter demonstrates that Anadarko's accounting for the Shen 3 well costs is consistent with a reasonable interpretation of GAAP.

A. Anadarko's Decision to Suspend the Shen 3 Well Costs as of December 31, 2014 Was Consistent with GAAP

73. As set forth in Section V.C, ASC 932-360 contains the guidance that is relevant to a determination as to whether costs incurred related to the drilling of an exploratory-type

¹⁵⁹ See, Section VII.C.

¹⁶⁰ Regan Report, ¶¶ 11, 37; Regan Deposition, pp. 67:22–72:2.

¹⁶¹ Regan Report, ¶ 37.

¹⁶² Regan Report, ¶¶ 11, 37.

stratigraphic test well should be expensed or suspended upon completion of the drilling of that well, including guidance related to the two criteria that must be satisfied for continued suspension (*i.e.*, the Sufficient Quantity and Sufficient Progress criteria).¹⁶³ Although ASC 932-360-25-18 provides guidance specific to these two criteria, a rigorous, thoughtful and deliberate evaluation of Anadarko's decision to initially suspend Shen 3 well costs must necessarily consider the totality of guidance contained in ASC 932-360.

1. ASC 932-360-25-10 Establishes that Costs Associated with Stratigraphic Test Wells Are Suspended Pending Determination of Whether Proved Reserves Are Found

74. GAAP related to the initial recognition of costs associated with stratigraphic test wells provides guidance stating that the costs associated with stratigraphic test wells (such as Shen 3) are to be suspended until a determination of whether proved reserves have been found (*i.e.*, generally at FID). Specifically, ASC 932-360-25-10 states the following:

“The costs of drilling exploratory wells and the costs of drilling exploratory-type stratigraphic test wells shall be capitalized as part of the entity’s uncompleted wells, equipment, and facilities pending determination of whether the well has found proved reserves.”¹⁶⁴

75. ASC 932-360-25-10 contains no additional guidance. It sets forth no separate criteria for the initial suspension of costs associated with drilling exploratory-type stratigraphic test wells. Instead, it states that the costs associated with exploratory-type stratigraphic test wells are *suspended* pending the final determination of whether *proved reserves* have been found.

76. Note also that this guidance refers both to “wells” and to “well” in the same sentence. One might conclude that the phrase “pending determination of whether the well has found proved reserves” refers to a single well. However, in deepwater exploration, a single well will rarely, if ever, find proved reserves.¹⁶⁵ It is the process of drilling multiple wells to test the reservoir, and then determining whether the oil in the reservoir is economically producible, that allows a company to book (*i.e.*, report) proved reserves. Therefore, one might reasonably

¹⁶³ See, Section V.C.

¹⁶⁴ ASC 932-360-25-10.

¹⁶⁵ Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition, p. 453.

interpret the phrase as “the costs of drilling … wells shall be capitalized… pending determination of whether the *wells have* found proved reserves.” Indeed, the “single well” interpretation would rarely result in capitalization of well costs for any exploratory well drilled in deepwater even if the field is determined to have proved reserves because the determination that proved reserves were found is unlikely to be based on the evidence provided by any single well.¹⁶⁶

77. Additionally, it is important to consider the distinction between *capitalization* and *suspension* pertaining to the successful efforts method. Suspension is an intermediate point between incurring a cost and determining whether that cost qualifies for capitalization as an amortizable asset, at which point the cost is reflected on the balance sheet and is subject to depreciation/amortization. When a cost is suspended, it is simply held in suspense on the balance sheet until additional information is gathered to inform the determination of whether the cost should be recorded as an amortizable asset on the balance sheet or as an expense on the income statement.

78. The additional information that will be gathered in the future will determine “whether the well has found proved reserves.”¹⁶⁷ Here, it is important to recognize that the guidance states “proved reserves.” The Codification’s definition of “Proved Oil and Gas Reserves” establishes that “proved reserves” are “quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs.”¹⁶⁸ In other words, to have proved reserves there must be a determination that the ability to economically produce the oil is reasonably certain, which requires data learned over the course of the appraisal process. Moreover, the Codification does not establish that “proved reserves” are limited to the oil that is extracted from an individual well. Instead, it establishes that “proved reserves” are associated with a reservoir rather than an individual well. Accordingly, this estimation is made based on data (*i.e.*, information) about a reservoir that may be derived from multiple appraisal wells.¹⁶⁹

¹⁶⁶ Green Deposition, pp. 33:10–22, 44:11–45:20, 83:15–84:13.

¹⁶⁷ ASC 932-360-25-10.

¹⁶⁸ ASC 932-360-20.

¹⁶⁹ ASC 932-360-20.

79. With respect to Anadarko's process, according to the testimony of Catherine Green (a Manager within Anadarko's domestic Property Accounting group from 2011 to 2015), the determination of whether any stratigraphic test well has identified "proved reserves" is not made until sufficient data has been gathered across multiple appraisal wells that enables Anadarko to reach FID with respect to the broader reservoir.¹⁷⁰

2. ASC 932-360-25-17 Establishes that Stratigraphic Test Wells Are Drilled to Obtain Information

80. ASC 932-360 states that stratigraphic test wells are drilled for the purpose of obtaining information, and not oil. Specifically, ASC 932-360-25-17 states:

"Stratigraphic test wells are drilled to obtain information. They are not normally intended to be completed for hydrocarbon production and are customarily abandoned after drilling is completed and the information is obtained. Normally, stratigraphic test wells are drilled offshore to determine whether an offshore property contains sufficient reserves to justify the cost of constructing and installing a production platform and to determine where to locate such a platform."¹⁷¹

81. This guidance is important because it informs the interpretation of the Sufficient Quantity criterion. It establishes that stratigraphic test wells are not drilled to obtain oil, but instead to "determine whether an offshore **property** contains sufficient reserves to justify the cost of constructing and installing a production platform and to determine **where to locate such a platform.**"¹⁷² This guidance does not state that the stratigraphic test well is drilled to determine whether the offshore **well** contains sufficient reserves within the well bore itself.

82. This guidance is consistent with the guidance contained in ASC 932-360-25-10 (described in Section VII.A.1) which establishes that costs associated with exploratory-type stratigraphic test wells are suspended until sufficient information has been gathered to make a determination as to whether proved reserves have been found (*i.e.*, FID).

¹⁷⁰ Green Deposition, pp. 17:15–18:18, 31:20–33:22.

¹⁷¹ ASC 932-360-25-17.

¹⁷² ASC 932-360-25-17 (emphasis added).

3. ASC 932-360-25-3 Also Supports the Initial Suspension of Exploratory Well Costs Pending Additional Information

83. The discussion of the successful efforts accounting method in ASC 932-360 is consistent with the principle that the costs associated with exploratory-type stratigraphic test wells are suspended when incurred. Specifically, ASC 932-360-25-3 states:

“Only those exploration costs and development costs that relate directly to specific oil and gas reserves are capitalized; costs that do not relate directly to specific reserves are charged to expense. The successful efforts method of accounting conforms to the traditional concept of the historical cost of an asset. Under the successful efforts method, certain types of costs may be capitalized as construction-in-progress pending further information about the existence of future benefits, but as soon as the additional information becomes available, and it is known whether future benefits exist, those costs are either reclassified as an amortizable asset or charged to expense.”¹⁷³

84. This guidance echoes the guidance in ASC 932-360-25-10 which establishes that costs associated with exploratory-type stratigraphic test wells are initially suspended pending additional information that is necessary to make the determination of whether proved reserves have been identified in sufficient quantity to justify the development of the field (*i.e.*, FID).

4. ASC 932-360-35-18 Also Supports the Assessment of the Sufficient Quantity Criterion on the Basis of the Broader Field and Not Simply on the Basis of the Oil in the Well Itself

85. ASC 932-360-35-18 provides guidance related to the on-going assessment of suspended well costs and includes discussion related to “whether capitalized drilling costs shall continue to be capitalized pending the determination of proved reserves”, *i.e.*, the assessment of the Sufficient Quantity and Sufficient Progress criteria set forth in ASC 932-360-35-18:

“An exploratory well or an exploratory-type stratigraphic well may be determined to have found oil and gas reserves, but those reserves cannot be classified as proved when drilling is completed. In those cases, the capitalized drilling costs shall continue to be capitalized if the well has found a sufficient quantity of reserves to justify its completion as a producing well and the entity is making sufficient progress assessing the reserves and the economic and operating viability of the project. Note that an entity is not required to complete the exploratory or exploratory-type stratigraphic well as a producing well. For purposes of determining whether capitalized drilling costs shall continue to be capitalized pending the determination of proved reserves, a project may include more than one exploratory well or

¹⁷³ ASC 932-360-25-3.

exploratory-type stratigraphic well if the reserves are intended to be extracted in a single, integrated producing operation (for example, the producing wells will operate with shared infrastructure).¹⁷⁴

86. This portion of the Codification provides additional insight into a reasonable interpretation of the Sufficient Quantity criterion. Specifically, this guidance explicitly states that “a project may include more than one exploratory well or exploratory-type stratigraphic well.”¹⁷⁵ As a result, an accountant may reasonably conclude that suspended drilling costs shall continue to be suspended pending determination of proved reserves and, if the reserves are intended to be extracted in a single, integrated producing operation, the suspended drilling costs can include the costs of all of the project’s exploratory and exploratory-type stratigraphic test wells.¹⁷⁶ Therefore, it is reasonable to evaluate the Sufficient Quantity criterion set forth in ASC 932-360 on the basis of the reserves identified in the course of the exploratory phase of the drilling project across multiple stratigraphic test wells, provided that the potential proved reserves will be extracted in a single, integrated producing operation.

87. Furthermore, with respect to the Sufficient Quantity criterion set forth in ASC 932-360-35-18, the guidance states: “the capitalized drilling costs shall continue to be capitalized if the well has found a sufficient quantity of reserves to justify its completion as a producing well.”¹⁷⁷ A reasonable interpretation of this criterion does not require that the “sufficient quantity” assessment be based solely on the amount of reserves located within the wellbore itself (or retrievable through the exploratory type stratigraphic test well should it be completed as a producing well). A reasonable interpretation of this language is that it refers to the costs that will necessarily be incurred in the future in order to extract the hydrocarbons that are determined to be located within the reservoir, based on the information obtained through the exploratory type stratigraphic test well, and that those costs must be considered in determining whether the development of the project will generate sufficient revenue to recoup the total costs of the project. This interpretation is consistent with the language elsewhere in ASC 932-360 (*e.g.*, ASC 932-360-25-10 and ASC 932-360-25-17), as described above, which establishes, among other things, that exploratory type stratigraphic test wells are drilled to obtain information and not oil,

¹⁷⁴ ASC 932-360-35-18.

¹⁷⁵ ASC 932-360-35-18.

¹⁷⁶ The FASB refers to this concept as “unit of accounting.” ASC 932-360 provides guidance that can be viewed as providing two distinct units of accounting: 1) a single well, and 2) project (*i.e.*, multiple wells).

¹⁷⁷ ASC 932-360-35-18.

and their costs may be suspended pending determination of whether proved reserves are located within the reservoir.

5. ASC 932-360-25-18 Itself Is Consistent with This Interpretation of the Sufficient Quantity Criterion

88. ASC 932-360-25-18, which provides guidance specific to stratigraphic test wells, is consistent with the guidance contained elsewhere in ASC 932-360 (specifically, 25-10, 25-17, 25-3, and 35-18). ASC 932-360-25-18 states:

“Stratigraphic test wells are divided into two types—exploratory-type and development-type—and the standards of accounting for the two types parallel the accounting for exploratory wells and development wells, respectively. Thus, an exploratory-type stratigraphic test well is accounted for in a manner similar to an exploratory well drilled in an area requiring a major capital expenditure before production could begin (see paragraph 932-360-25-10). The costs of drilling the exploratory-type stratigraphic test well are capitalized pending determination of whether proved reserves are found, subject to the condition that those costs shall not continue to be carried as assets if the entity is not making sufficient progress assessing the reserves and the economic and operating viability of the project or if the quantity of reserves found would not justify completion of the well for production had it not been simply a stratigraphic test well. Thus if an exploratory-type stratigraphic test well discovers reserves that are classified as proved and facilities are to be installed to produce those reserves, the cost of the exploratory-type stratigraphic test well is accounted for as part of the cost of the facilities even though the particular well itself may be abandoned. Accounting for the other type of stratigraphic test well—development-type—is identical to accounting for development wells and other development costs generally: capitalize as part of the cost of an entity’s wells and related equipment and facilities (as discussed in paragraph 932-360-25-14).”¹⁷⁸

89. Note that this guidance explicitly refers to ASC 932-360-25-10 which provides for the initial capitalization (*i.e.*, suspension) of exploratory-type stratigraphic test wells without identifying any criteria for that capitalization. The guidance also states that “[t]he costs of drilling the exploratory-type stratigraphic test well are capitalized pending determination of whether proved reserves are found,” *i.e.*, FID, subject to a compound condition involving multiple criteria.¹⁷⁹ Of these criteria, the “quantity of reserves found” (referred to as the Sufficient Quantity criterion above) requires additional analysis.

¹⁷⁸ ASC 932-360-25-18.

¹⁷⁹ ASC 932-360-25-18.

90. With respect to the Sufficient Quantity criterion, ASC 932-360-25-18 states that this criterion is to be applied when determining whether these costs qualify to “continue to be carried as assets.”¹⁸⁰ Again, this guidance relates to costs which have already been suspended and the determination of whether they qualify to “continue to be” carried as assets pending receipt of additional information. Furthermore, the discussion of the Sufficient Quantity criterion in ASC 932-360-25-18 does not establish that this criterion must be assessed solely based on the oil that is found within a single well bore. Specifically, the guidance does *not* state “if the quantity of reserves found **in the well** would not justify completion of the well for production.” Therefore, it is reasonable to interpret the Sufficient Quantity criterion as set forth in ASC 932-360-25-18 to be consistent with the guidance in ASC 932-360-35-18, which states that “[f]or purposes of determining whether capitalized drilling costs shall continue to be capitalized pending the determination of proved reserves, a project may include more than one exploratory well or exploratory-type stratigraphic well.”¹⁸¹

6. The Decision to Suspend the Costs Associated with Shen 3 as of December 31, 2014 Was Consistent with a Reasonable Interpretation of ASC 932-360

91. Based on a thorough evaluation of the guidance in ASC 932-360, I find the following conclusions to represent reasonable interpretations of the guidance contained therein:

- Exploratory-type stratigraphic test wells are drilled for the purpose of obtaining information that assists in the determination of whether a reservoir contains sufficient quantities of proved reserves that would justify the development of that reservoir.
- Costs associated with the drilling of exploratory-type stratigraphic test wells may be suspended pending determination of whether proved reserves have been found, subject to the project satisfying the two criteria set forth in ASC 932-360 (*i.e.*, the Sufficient Quantity and the Sufficient Progress criteria).
- With respect to the Sufficient Quantity criterion, the determination of whether sufficient reserves have been identified is not based on the amount of oil found in a specific exploratory-type stratigraphic test well, but rather on the current estimate of recoverable

¹⁸⁰ ASC 932-360-25-18.

¹⁸¹ ASC 932-360-35-18.

resources based on the information regarding the reservoir derived from all exploratory wells drilled as of that date.

92. As applied to an evaluation of the drilling costs associated with Shen 3, there is substantial evidence that the Sufficient Progress criterion was met. Indeed, my review demonstrates that, as of December 31, 2014, Anadarko was making sufficient progress in assessing the reserves and the economic and operating viability of the Shenandoah Project to satisfy the Sufficient Progress criterion.¹⁸²

93. With respect to an assessment of the Sufficient Quantity criterion, my review demonstrates that, as of December 31, 2014, the results of Shen 3 provided information that permitted Anadarko to estimate recoverable resources from the Shenandoah project that justified the continuation of the appraisal portion of the project with progress being made towards the development of the project. For example,

- On December 17, 2014, Ms. Green, Diane Sease (Financial Advisor – Exploration Engineering) and Forrest Burton (Exploration Planning Manager) were among the attendees at a quarterly meeting between members of Anadarko’s Property Accounting and Exploration Planning groups (“Q4 2014 Impairment Meeting”).¹⁸³ Notes from the Q4 2014 Impairment Meeting state that while total depth was reached and the sands encountered were non hydrocarbon-bearing, the Shen 3 appraisal well was considered “successful” because “[p]ressure data collected in the well suggested that the oil/water contact was close to the appraisal well which increases the confidence in the resources of the field.”¹⁸⁴
- On January 2, 2015, Ms. Sease e-mailed various Anadarko employees regarding the accounting treatment for the Shen 3 appraisal well, stating that “it was a successful appraisal well to determine the extent of the reservoir.”¹⁸⁵
- On January 6, 2015, Cheryl Judkins (Financial Reporting Manager) circulated the “Fourth-Quarter 2014 Accounting Issues List,” which noted that Shen 3 did not

¹⁸² E.g., Anadarko had firm plans to continue the Shenandoah appraisal program by allocating its resources to drilling future appraisal wells and advancing the Shenandoah Project towards FID. See, APC-00154334–338 at 336; APC-00001813; APC-00349767–783 at 778; APC-00012037; APC-00012384; APC-00147909; APC-00852342–343.

¹⁸³ APC-00154334–338 at 334.

¹⁸⁴ APC-00154334–338 at 336.

¹⁸⁵ APC-00152882–883 at 882.

encounter hydrocarbons but was considered a successful appraisal well because “the well did provide substantial information about the reservoir.”¹⁸⁶

- On or around February 2, 2015, Anadarko released its Operations Report for the fourth quarter of 2014 (“Q4 2014 Operations Report”).¹⁸⁷ The Q4 2014 Operations Report indicated that the Shen 3 appraisal well “found approximately 50% (1,470 feet) more of the same well-developed reservoir sands 1,500 feet down-dip and 2.3 miles east of the Shenandoah-2 well, which encountered more than 1,000 feet of net oil pay in excellent quality, Lower Tertiary-aged sands,” “confirmed the sand depositional environment, lateral sand continuity, reservoir qualities and down-dip thickening,” and also “enabled the projection of oil/water contacts based on pressure data, and reduced the uncertainty of the resource range.”¹⁸⁸
- On February 12, 2015, Mr. Leyendecker e-mailed several Anadarko employees, stating, “Yes, [the Shen 3 appraisal well] was a wet well, but extremely valuable information in the normal course of a prudent operator delineating a field’s limits. Using industry best practices the well allowed the owners to project the oil-water-contacts and is potentially useable as a future water injection well for pressure maintenance.”¹⁸⁹

94. In addition, former employees and officers of Anadarko have also consistently testified that Shen 3 provided important information for Anadarko to better understand the extent of the Shenandoah field. For example, James Kleckner (Executive Vice-President of International Deepwater and a member of Anadarko’s Executive Committee until August 2016) recalled that Shen 3 provided “a lot of information about reservoir quality, facies deposition, sand homogeneity, lateral extent” and explained that in an appraisal program, Anadarko’s objective was to obtain more information and data.¹⁹⁰ Specifically, Mr. Kleckner testified that “[e]arly on when there’s very limited data, it’s very difficult to make broad extrapolations and/or specific

¹⁸⁶ APC-01749352–365 at 354.

¹⁸⁷ APC-00349767–783 at 767.

¹⁸⁸ APC-00349767–783 at 778.

¹⁸⁹ APC-00626533–534 at 533.

¹⁹⁰ Deposition of James Kleckner, October 14, 2022 (“Kleckner Deposition”), pp. 17:20–18:22, 90:22–91:15, 92:6–22.

determinations. And so Shen 3 was one of several wells that we drilled to try and determine the lateral extent of the reservoir system. So from a standpoint of getting the wells down successfully and obtaining all the information back from the logs, pressure information, it acquired the necessary data set to help us understand more about the extent of the Shenandoah discovery.”¹⁹¹ In addition, Chris Camden (GOM Exploration Engineer) testified that appraisal programs are “designed to eventually find out where the reservoir isn’t” and that Shen 3 was always considered a successful appraisal well, despite not finding oil, because of the information it provided helped Anadarko define “where the reservoir isn’t as much as where it is,” and gave Anadarko “more clarity on the numbers that we should be working with [i.e., the estimated quantities of recoverable resources in the field].”¹⁹²

95. As a result, in my opinion, Anadarko’s decision to suspend the Shen 3 well costs as of December 31, 2014 was reasonable and consistent with GAAP (specifically ASC 932-360), because the information from the Shen 3 appraisal well enabled Anadarko to both better estimate the size of the Shenandoah reservoir and reduce the uncertainty of the quantity of recoverable resources.

B. Anadarko’s Decision to Continue to Suspend the Shen 3 Well Costs Was Consistent with GAAP

96. As described above, ASC 932-360 establishes the Sufficient Quantity and Sufficient Progress criteria that must be met for costs associated with drilling an exploratory well or exploratory-type stratigraphic test well to *continue* to be suspended pending determination of proved reserves.¹⁹³ ASC 932-360 also recognizes that a period of time may pass between completion of drilling a well and a determination of whether proved reserves have been discovered.¹⁹⁴ This time period can be particularly long in deepwater offshore operations where

¹⁹¹ Kleckner Deposition, p. 92:6–22.

¹⁹² Deposition of Chris Camden, July 14, 2022 (“Camden Deposition”), pp. 23:6–19, 218:11–221:24. See also, Deposition of Ernest A. Leyendecker III, September 22, 2022 (“Leyendecker Deposition”), pp. 167:25–169:14.

¹⁹³ ASC 932-360-25-18; ASC 932-360-35-18. Note that Section 25 is the “Recognition” section and “provides guidance on the required criteria, timing, and location (within the financial statements) for recording a particular item in the financial statements.” Section 35 is the “Subsequent Measurement” section and “provides guidance on an entity’s subsequent measurement and subsequent recognition of an item. Situations that may result in subsequent changes to the carrying amount include impairment, credit losses, fair value adjustments, depreciation and amortization, and so forth.” See, General Note for ASC 932-360-25 and ASC 932-360-35.

¹⁹⁴ ASC 932-360-35-18; ASC 932-360-35-20.

multiple appraisal wells may be needed to evaluate the scope of recoverable resources of the field.¹⁹⁵

97. GAAP recognizes the need to potentially drill multiple stratigraphic test wells (including appraisal wells). Specifically, ASC 932-360-35-18 explicitly establishes that exploration projects may require multiple wells to be drilled in order to make a determination regarding whether proved reserves are found.¹⁹⁶ Therefore, in circumstances where more than one appraisal well is required (as was the case with the Shenandoah Project), a reasonable interpretation of ASC 932-360 is that the Sufficient Quantity criterion may be assessed based on the estimated quantities of reserves within the field or project as a whole rather than on an individual well-by-well basis. Accordingly, in conformity with GAAP, Anadarko reasonably determined to suspend Shen 3 well costs because data obtained from the well informed Anadarko's estimate of oil and gas in the field that would, in time, determine whether Shenandoah would be sanctioned. For example, Anadarko's contemporaneous mean estimates for gross recoverable resources within the Shenandoah field were approximately 740 to 920 MMBOE; this evidence suggests oil and gas in the field was sufficient for Anadarko to justify continuation of the Shenandoah appraisal project and, potentially for development and production of the field.¹⁹⁷ As a result, Anadarko continued to satisfy the Sufficient Quantity criterion set forth in ASC 932-360-35-18 for continued suspension of Shen 3 well costs.

98. In addition, my analysis indicates that Anadarko also continued to satisfy the Sufficient Progress criterion. For example, Anadarko engaged in a quarterly review process to determine whether suspended well costs continued to qualify for capitalization pending the determination of proved reserves. This review included quarterly "Impairment Review Meetings" attended by members of Anadarko's Property Accounting and Exploration Planning groups, among others, in which such members assessed the reasonableness of the continued suspension of the suspended well costs such as the Shen 3 costs. Specifically:

- **2015:** Notes from the Q1 2015 Impairment Review Meeting indicate that Anadarko continued to meet the Sufficient Progress criterion which supported the continued

¹⁹⁵ Green Deposition, pp. 44:11–45:20.

¹⁹⁶ ASC 932-360-35-18.

¹⁹⁷ The mean estimates of 740 and 920 MMBOE are based on different fault models. See, Exhibit 173, APC-00000768-769.

suspension of Shen 3 well costs.¹⁹⁸ The notes also indicate that a determination of whether proved reserves are found in the Shenandoah field would likely not occur until, at earliest, “the end of 2016 as a fifth well [was] needed to appraise the prospect.”¹⁹⁹ Notes from the Q2 2015, Q3 2015, and Q4 2015 Impairment Review Meetings indicate that there were no changes to the status of suspended wells in the Shenandoah field and “[a]dditional appraisal drilling is needed before the project is sanctioned.”²⁰⁰ Notes from the Q4 2015 Impairment Review Meeting further re-iterated that “Shenandoah sanctioning, at earliest, will be towards the end of 2016.”²⁰¹

- **2016:** Notes from the Q1 2016 Impairment Review Meeting once again noted “no changes to suspended [Shenandoah] wells,” that additional wells would be needed prior to sanctioning the Shenandoah field, and that an additional well following Shen 5 (which had just spud on March 14, 2016) would likely be needed before reaching a determination of whether proved reserves had been found.²⁰² Notes from the Q2 2016 Impairment Review Meeting indicated that results of Shen 4 were being evaluated, that additional appraisal drilling was needed prior to determining whether proved reserves had been found, and that there were no changes to the status of Shenandoah suspended well costs.²⁰³

99. Therefore, contemporaneous documents indicate that Anadarko was making “sufficient progress on assessing the reserves and the economic and operating viability” of the Shenandoah Project. Accordingly, Anadarko met both the Sufficient Quantity and Sufficient Progress criteria set forth in ASC 932-360-35-18. As a result, Anadarko’s decision to continue suspending Shen 3 well costs from the first quarter of 2015 through the second quarter of 2016 was reasonable and consistent with GAAP.

¹⁹⁸ APC-00171559-564 at 562.

¹⁹⁹ APC-00171559-564 at 562.

²⁰⁰ APC-00886732-737 at 734; APC-00931740-745 at 742; APC-00356404-408 at 406.

²⁰¹ APC-00356404-408 at 407.

²⁰² APC-01354805-808 at 807.

²⁰³ APC-01364738-742 at 739, 742.

C. Mr. Regan's Analysis Is Flawed and Unreliable

100. In reaching his conclusion that Anadarko's accounting for the Shen 3 well costs as of December 31, 2014 violated GAAP, Mr. Regan failed to perform a competent and diligent analysis. Specifically, he failed to (1) perform a correct analysis based on authoritative GAAP (*i.e.*, ASC 932-360, rather than superseded and non-authoritative guidance); (2) address the professional judgments made by Anadarko financial reporting personnel; (3) evaluate all relevant evidence; and (4) address the contemporaneous conclusions reached by other accounting professionals. Instead of being based on a competent and diligent analysis, Mr. Regan's opinions are predicated on a series of assumptions that simply ignore the complex and judgmental GAAP financial reporting analysis and resulting conclusions reached by Anadarko. I discuss each of these flaws in more detail below.

101. Because of these flaws, Mr. Regan's opinion that Anadarko's accounting for the Shen 3 well costs as of December 31, 2014 violated GAAP is unreliable.

1. Mr. Regan's Opinions Are Predicated on an Evaluation of Superseded and Non-Authoritative Guidance

102. Mr. Regan's opinion that Anadarko violated GAAP by failing to immediately expense the Shen 3 drilling costs is predicated on accounting guidance that was no longer authoritative (and therefore not GAAP) at the time that Anadarko made its accounting determinations. Therefore, Mr. Regan's opinion is unreliable.

103. As described previously, management is required to prepare its financial statements in accordance with GAAP.²⁰⁴ Recognition that the Codification is the source of authoritative GAAP is an imperative for an entity to comply with SEC regulations. Rule 4-01 of Regulation S-X states: "Financial statements filed with the Commission which are not prepared in accordance with generally accepted accounting principles will be presumed to be misleading or inaccurate, despite footnote or other disclosures, unless the Commission has otherwise provided."²⁰⁵ At deposition, Mr. Regan acknowledged that the Codification is "now the authoritative GAAP" and an assessment of Anadarko's accounting determinations at issue in this matter should evaluate

²⁰⁴ See, Section V.A.

²⁰⁵ 17 CFR § 210.4-01(a)(1).

this guidance.²⁰⁶ Also, as described previously, the Codification sometimes is updated to make substantive or technical changes in order to reflect developments in the business and financial reporting environments of issuers.²⁰⁷ In order to perform a competent and diligent analysis, Mr. Regan's analysis must include a review and analysis of *relevant* literature.²⁰⁸ Any literature that is not part of GAAP as of the date Anadarko reached its accounting determinations at issue in this matter would not be considered "relevant" if, as here, the Codification provides direct guidance, notwithstanding that irrelevant literature has some passages that are similar to (or perhaps even the same as) some passages in the Codification. Instead, the analysis should be based solely upon an analysis of relevant literature (*i.e.*, GAAP or other guidance as directed by GAAP in effect at the time Anadarko reached its accounting determinations).²⁰⁹ This principle is consistent with the AICPA's Statement on Standards for Forensic Services ("AICPA Forensic Standards"), under which Mr. Regan asserted his analysis was performed, which states that a member offering forensic services must "[o]btain sufficient *relevant* data to afford a reasonable basis for conclusions or recommendations in relation to any professional services performed."²¹⁰

104. At deposition, Mr. Regan continued to make incorrect assertions with respect to GAAP as well as guidance that is and is not authoritative under GAAP. For example, Mr. Regan testified that "[t]hose principles which the AICPA council has designated to constitute GAAP, that would be authoritative GAAP."²¹¹ This statement is incorrect. As described above, during the Class Period, the FASB has been the standard setting organization that has primary responsibility for establishing and maintaining GAAP. Mr. Regan further testified "the principles [...] that comprise IFRS [and] the AICPA's audit and accounting guides [...] constitute[] GAAP."²¹² When asked what his basis was for asserting that the AICPA Accounting and Auditing Guides constitute GAAP, Mr. Regan testified "[i]t's within the umbrella, which is

²⁰⁶ Regan Deposition, pp. 53:18–55:25.

²⁰⁷ See, Section V.B.

²⁰⁸ AICPA, "Statement on Standards for Forensic Services," ¶ 6. See also, CIFR Report, p. 95.

²⁰⁹ ASC 105-10-05-2 ("If the guidance for a transaction or event is not specified within a source of authoritative GAAP for that entity, an entity shall first consider accounting principles for similar transactions or events within a source of authoritative GAAP for that entity and then consider nonauthoritative guidance from other sources.").

²¹⁰ Regan Report, ¶ 4; AICPA, "Statement on Standards for Forensic Services," ¶ 6 (emphasis added).

²¹¹ Regan Deposition, pp. 40:24–41:11.

²¹² Regan Deposition, pp. 40:24–41:11 ("Q: What is your understanding of "authoritative GAAP"? A: Those principles which the AICPA council has designated to constitute GAAP, that would be authoritative GAAP. And what that generally is is [sic] the ASCs issued by the FASB, the principles pronounced by the -- that comprise IFRS; the AICPA's audit and accounting guides; AICPA has approximately -- well, a little more than 30 accounting guides that are specific to certain industries and transactions. That's generally most of the -- of what constitutes GAAP.").

frequently looked to under appropriate circumstances.”²¹³ These statements are false and misrepresent GAAP. As described above, the FASB has established that the source of authoritative GAAP is the Codification. The Codification also sets forth sources of “accounting guidance and literature” that it explicitly identifies as “nonauthoritative.”²¹⁴ These sources include: 1) practices that are widely recognized and prevalent either generally or in the industry, 2) AICPA Issues Papers, 3) International Financial Reporting Standards of the International Accounting Standards Board, 4) pronouncements of professional associations or regulatory agencies (e.g., AICPA), and 5) Technical Information Service Inquiries and Replies included in AICPA Technical Practice Aids.²¹⁵

105. Mr. Regan’s opinions are not based solely on an analysis of relevant literature. For example, in his discussion of the “industry-specific accounting standards” in GAAP, Mr. Regan asserts that Statement of Financial Accounting Standards No. 19, *Financial Accounting and Reporting by Oil and Gas Producing Companies* (“FAS 19”) “serves as the primary source for relevant codified accounting standards applicable to Anadarko.”²¹⁶ Throughout his analysis of Anadarko’s accounting related to the Shen 3 drilling costs as of December 31, 2014, the Regan Report repeatedly refers to FAS 19. For example, the Regan Report uses this non-authoritative and superseded guidance as support for the following assertions:

- “costs that do not relate to probable future economic benefit are normally not capitalized under GAAP during the Relevant Period.”²¹⁷
- “In its original 1977 Basis for Conclusion upon issuance of relevant GAAP (i.e., FAS 19), the FASB observed that ‘[e]stablishing a direct cause-and-effect relationship between costs incurred and specific reserves discovered is not relevant to full costing.’ The FASB further observed that because the full cost method permits the capitalization of costs relating to unsuccessful property acquisitions and unsuccessful exploratory activities along with the costs of successful acquisitions and exploratory activities, ‘full costing tends to obscure failure and risk.’”²¹⁸

²¹³ Regan Deposition, p. 41:12–17.

²¹⁴ ASC 105-10-05-3.

²¹⁵ ASC 105-10-05-3.

²¹⁶ Regan Report, ¶¶ 27, 31.

²¹⁷ Regan Report, ¶ 40.

²¹⁸ Regan Report, ¶ 44.

- “In establishing this GAAP, the FASB recognized that a direct relationship exists between (i) costs incurred, and (ii) the discovery of oil reserves, under the successful efforts methodology. Indeed, the FASB further noted that because the ‘discovery of oil and gas reserves is a critical event in determining failure or success,’ the successful effort accounting methodology is intended to highlight ‘failures and the risks involved in the search for oil and gas reserves by charging to expense costs that are known not to have resulted in identifiable future benefits.’”²¹⁹
- “That is, absent the identification of any oil reserves, the proved reserves threshold could never be satisfied, and the cost of exploratory drilling must be expensed. In this regard, the FASB has observed that ‘costs be charged to expense as soon as a determination is made that proved reserves have not been found.’”²²⁰
- “Importantly, accounting for an exploration well (and an exploratory-type stratigraphic well) must be evaluated on its own under GAAP. That is, the success of a specific well in finding oil reserves should not be based on whether another, separate and distinct well previously found oil within a larger project area.”²²¹

106. Although several of these assertions may appear in the Codification, others do not. Based on my review of the Regan Report, it is not possible to determine which, if any, of Mr. Regan’s opinions are grounded in the Codification. For example, as noted above, Mr. Regan cites FAS 19 to assert that “full costing tends to obscure failure and risk.”²²² Later in the Regan Report, in support of his assertion that wells should be evaluated on an individual basis, Mr. Regan refers to this concept, stating “successful effort methodology which, **as noted above, was intended to highlight failures during the search for oil** by expensing costs that do not result in an identifiable future benefit. Suspending (capitalizing) such costs would **obscure failure and risk (violating GAAP).**”²²³ Mr. Regan explicitly connects the concept of “failure and risk” as set forth in FAS 19 to GAAP. However, FAS 19 was not GAAP at the times that Anadarko made its accounting determinations related to the Shen 3 well costs, and therefore is not an appropriate basis on which to evaluate Anadarko’s accounting for Shen 3.

²¹⁹ Regan Report, ¶ 46.

²²⁰ Regan Report, ¶ 48.

²²¹ Regan Report, ¶ 51.

²²² Regan Report, ¶ 44 (emphasis omitted).

²²³ Regan Report, ¶ 53 (emphasis added).

107. At deposition, Mr. Regan conceded that, for purposes of assessing Anadarko's accounting determinations at issue in this matter, Anadarko's financial statements are only required to comply with the guidance as it exists in ASC 932-360.²²⁴ In order to justify his reliance on FAS 19, Mr. Regan asserted at deposition that, "much of [FAS 19's] language is incorporated [into the Codification]" and, therefore, this language in FAS 19 could be considered authoritative.²²⁵ However, Mr. Regan also testified that he did not undertake an analysis to determine what portions of the language in FAS 19 were (or were not) codified into ASC 932-360.²²⁶

108. As described in Section V.B, reporting entities must prepare their financial statements in accordance with GAAP that is in effect for that reporting period.²²⁷ GAAP has evolved over time in response to numerous factors, including industry-specific developments such as those experienced within the oil and gas industry in the 45 years since FAS 19 was issued.

2. Mr. Regan's Opinions Are Predicated on an Incomplete Assessment of ASC 932-360

109. In addition to relying on superseded and non-authoritative guidance, Mr. Regan's opinions are predicated on an incomplete evaluation of relevant, authoritative GAAP (*i.e.*, ASC 932-360). Again, a competent and diligent analysis must be performed in a "rigorous, thoughtful, and deliberate manner."²²⁸ This principle is also echoed in the AICPA Forensic Standards under which Mr. Regan performed his analysis, which state that a member must "[e]xercise due professional care in the performance of professional services."²²⁹ In order for an analysis to be performed in a rigorous and reliable manner, it would be necessary for the analysis to consider the totality of the relevant literature, and not simply rely on isolated portions of that

²²⁴ Regan Deposition, p. 55:15–25.

²²⁵ Regan Deposition, p. 50:16–19.

²²⁶ Regan Deposition, p. 50:23–25.

²²⁷ The Codification acknowledges that "[c]ertain accounting standards have allowed for the continued application of superseded accounting standards for transactions that have an ongoing effect in an entity's financial statements." Those superseded standards are considered "grandfathered" and remain authoritative for those transactions after establishment of the Codification. See, ASC 105-10-70-2. No "grandfathered guidance" is applicable to the accounting determinations at issue in this matter.

²²⁸ CIFR Report, p. 94.

²²⁹ AICPA, "Statement on Standards for Forensic Services," ¶ 6.

literature. As described below, Mr. Regan's analysis fails to evaluate relevant, authoritative GAAP in a rigorous manner.

a) Mr. Regan's Analysis of ASC 932-360-25-18 Is Incomplete

110. Mr. Regan cites ASC 932-360-25-18 extensively.²³⁰ However, Mr. Regan isolates a portion of this paragraph and fails to address other guidance contained therein. Specifically, Mr. Regan fails to address the portion of ASC 932-360-25-18 that directly references ASC 932-360-25-10.²³¹ As described in Section VII.A.1, the entirety of ASC 932-360-25-10 states: “The costs of drilling exploratory wells and the costs of drilling exploratory-type stratigraphic test wells shall be capitalized as part of the entity’s uncompleted wells, equipment, and facilities pending determination of whether the well has found proved reserves.”²³² This guidance does not set forth thresholds or criteria that must be met in order for an exploratory well to be suspended versus immediately expensed. Therefore, a reasonable interpretation of this guidance, in conjunction with the portion of ASC 932-360-25-18 quoted above, would be that GAAP permits the initial suspension of costs incurred in drilling an exploratory-type stratigraphic test well until a determination is made that the ability to economically produce the estimated reserves is reasonably certain (*i.e.*, “whether the well has found **proved** reserves”).²³³

111. Mr. Regan's evaluation of ASC 932-360-35-18 is similarly incomplete. While Mr. Regan states that a separate criterion exists in ASC 932-360-35-18 requiring an entity to assess the Sufficient Progress criterion, he claims “that criterion becomes irrelevant if an individual well fails to find oil reserves.”²³⁴ At deposition, Mr. Regan acknowledged that his assessment of ASC 932-360-25-18 is not based on an evaluation of the entirety of the guidance contained therein. Specifically, Mr. Regan stated that “[Shen 3] was a dry hole. It wasn’t going to find proved reserves. So, we don’t get to the rest of the sentence -- we don’t get to the rest of [ASC

²³⁰ See, *e.g.*, Regan Report, ¶ 39.

²³¹ ASC 932-360-25-18 (“Stratigraphic test wells are divided into two types—exploratory-type and development-type—and the standards of accounting for the two types parallel the accounting for exploratory wells and development wells, respectively. **Thus, an exploratory-type stratigraphic test well is accounted for in a manner similar to an exploratory well drilled in an area requiring a major capital expenditure before production could begin (see paragraph 932-360-25-10).**” (emphasis added)).

²³² ASC 932-360-25-10.

²³³ ASC 932-360-25-10 (emphasis added).

²³⁴ Regan Report, ¶ 53.

932-360-25-18] because it did not find proved reserves. It was a dry hole.”²³⁵ This testimony contradicts other testimony by Mr. Regan in which he stated that if an exploratory stratigraphic test well does not encounter hydrocarbons, that would not necessarily end the assessment of whether to suspend the costs associated with such a well under ASC 932-360.²³⁶

112. In addition, while Mr. Regan acknowledges the portion of ASC 932-360-35-18 related to the Sufficient Quantity and Sufficient Progress criteria, he completely disregards other portions of ASC 932-360-35-18.²³⁷ Specifically, he fails to address the portion of ASC 932-360-35-18 that states: “For purposes of determining whether capitalized drilling costs shall continue to be capitalized pending the determination of proved reserves, a project may include more than one exploratory well or exploratory-type stratigraphic well if the reserves are intended to be extracted in a single, integrated producing operation (for example, the producing wells will operate with shared infrastructure).”²³⁸ A reasonable interpretation of this guidance is that a determination of whether to suspend the costs associated with a specific exploratory-type stratigraphic test well need not consider only the results of that specific well, but may consider those results in conjunction with the information obtained from other wells within the field.

b) Mr. Regan Fails to Address ASC 932-360-25-17

113. Among other paragraphs, ASC 932-360-25-17 and ASC 932-360-25-18 discuss “Stratigraphic Test Wells.”²³⁹ Mr. Regan cites ASC 932-360-25-18 extensively, but does not mention the guidance contained in ASC 932-360-25-17. As described above, ASC 932-360-25-17 establishes that stratigraphic test wells are drilled to obtain information, rather than for hydrocarbon production, and are normally abandoned after information is obtained.²⁴⁰ Specifically, ASC 932-360-25-17 establishes that stratigraphic test wells are normally drilled offshore to obtain information necessary to determine whether “an offshore **property** contains

²³⁵ Regan Deposition, pp. 63:13–64:18.

²³⁶ Regan Deposition, pp. 71:8–72:2.

²³⁷ Regan Report, ¶ 47.

²³⁸ ASC 932-360-35-18.

²³⁹ ASC 932-360-25-17; ASC 932-360-25-18.

²⁴⁰ See, Section VII.A.2. See also, ASC 932-360-25-17.

sufficient reserves to justify the cost of constructing and installing a production platform and to determine where to locate such a platform.”²⁴¹

114. A reasonable interpretation of this guidance, which was not addressed by Mr. Regan, is that the success of a stratigraphic test well is evaluated based on the **information** it provides (as opposed to the oil it provides) and what this information suggests regarding the level of reserves contained within the offshore **property** (as opposed to within the wellbore itself). At deposition, Mr. Regan testified that a stratigraphic exploration well is defined in GAAP as “a well which is designed to acquire knowledge about the wellbore.”²⁴² This assertion is inconsistent with the guidance set forth in ASC 932-360-25-17, which establishes that stratigraphic test wells are intended to provide information regarding the “offshore property.”

115. Mr. Regan’s assertion also demonstrates his failure to appropriately distinguish between exploratory wells and exploratory-type stratigraphic test wells. Exploratory wells (*e.g.*, Shen 1) are drilled with the intention of finding hydrocarbons.²⁴³ ASC 932-360 specifically recognizes that an exploratory well is a well that is *not* a stratigraphic test well.²⁴⁴ ASC 932-360-25-17 clearly establishes that exploratory-type stratigraphic test wells are intended to obtain information, yet Mr. Regan repeatedly asserts, both in the Regan Report and at deposition, that Shen 3 could only be considered a “successful” well (and thereby qualify for suspension), if it had found hydrocarbons in the wellbore.²⁴⁵

116. The distinction between exploratory wells and exploratory stratigraphic test wells is reflected in the location where Shen 3 was drilled. As described above, Mr. Camden testified that Shen 3 was drilled in a location “designed to eventually find out where the reservoir isn’t.”²⁴⁶ When asked at deposition how his analysis addressed the location of Shen 3 and its resulting impact on whether the presence of hydrocarbons in the wellbore should determine the success of

²⁴¹ ASC 932-360-25-17 (emphasis added).

²⁴² Regan Deposition, p. 26:4–11.

²⁴³ ASC 932-360-20 (“An exploratory well is a well drilled to find a new field or to find a new reservoir in a field previously found to be productive of oil or gas in another reservoir.”).

²⁴⁴ ASC 932-360-20 (“Generally, an exploratory well is any well that is not a development well, a service well, or a stratigraphic test well.”) (emphasis added).

²⁴⁵ Regan Report, ¶ 50; Regan Deposition, pp. 92:11–93:17.

²⁴⁶ Camden Deposition, pp. 23:6–19, 218:11–221:24.

the well, Mr. Regan testified “[t]hat’s not something I -- that went into my interpretation of the facts and circumstances in this case.”²⁴⁷

c) Mr. Regan’s Analysis of ASC 932-360-25-3 Is Incomplete

117. Mr. Regan’s analysis of ASC 932-360-25-3 also is incomplete. Specifically, Mr. Regan cites ASC 932-360-25-3 to assert that “only those exploration costs and development costs that relate directly to specific oil and gas reserves are capitalized under the successful efforts method.’ Costs that do not relate directly to specific reserves are expensed.”²⁴⁸ Again, Mr. Regan cites only a portion of ASC 932-360-25-3. When the guidance is considered in its totality, it is clear that an alternative interpretation of the guidance is reasonable. Specifically, the balance of ASC 932-360-25-3 states that “certain types of costs may be capitalized as construction-in-progress **pending further information** about the existence of future benefits, but as soon **as the additional information becomes available**, and it is known whether future benefits exist, those costs are either reclassified as an amortizable asset or charged to expense.”²⁴⁹ This guidance is consistent with the interpretation of ASC 932-360 set forth above. That is, costs incurred with an exploratory-type stratigraphic test well may be suspended (*i.e.*, initially capitalized as an asset under construction or in progress) until a determination is made regarding whether to sanction a field.

118. Because Mr. Regan’s analysis fails to consider relevant, authoritative GAAP in a rigorous manner, he has failed to perform a competent and diligent analysis and, therefore, his opinions are unreliable.

3. Mr. Regan’s Analysis Fails to Evaluate the Judgment of Anadarko Accounting Personnel

119. A competent and diligent analysis of Anadarko’s accounting determinations must consider Anadarko’s analysis of the transaction as well as Anadarko’s evaluation of the relevant literature.²⁵⁰ This is consistent with the AICPA Forensic Standards, which states that members

²⁴⁷ Regan Deposition, pp. 87:8–89:20.

²⁴⁸ Regan Report, ¶ 45. See also, Regan Deposition, pp. 73:14–74:8.

²⁴⁹ ASC 932-360-25-3 (emphasis added).

²⁵⁰ CIFR Report, p. 95.

must exercise due professional care, obtain sufficient relevant data to afford a reasonable basis, and perform services with integrity and objectivity.²⁵¹ Yet, Mr. Regan fails to evaluate the accounting determinations made by Anadarko financial reporting personnel and, instead, inappropriately substitutes his own judgment. Mr. Regan's judgment regarding the interpretation of ASC 932-360 (which he asserts to be the *only* interpretation) is unreasonable and inconsistent with other reasonable interpretations of GAAP.²⁵²

120. Disclosures included within Anadarko's 10-K filing for the fiscal year ended December 31, 2014 provide insight into the Company's rationale for suspending Shen 3 well costs. Specifically, the 2014 10-K included the following disclosure:

“The Company spud the Shenandoah-3 well, its second appraisal well at the Shenandoah discovery, in the second quarter of 2014. The well finished drilling at the end of 2014 and found approximately 50% (1,470 feet) more of the same reservoir sands 1,500 feet down-dip and 2.3 miles east of the Shenandoah-2 well, which encountered over 1,000 feet of net oil pay in excellent quality Lower Tertiary-aged sands. The Shenandoah-3 well confirmed the sand depositional environment, lateral sand continuity, excellent reservoir qualities, and down-dip thickening. **The well also enabled the projection of oil-water contacts based on pressure data and reduced the uncertainty of the resource range.** Planning is underway for the next appraisal well, which the Company expects to spud in the second quarter of 2015.”²⁵³

121. This disclosure is consistent with an internal Anadarko memorandum prepared by the Property Accounting group, dated December 29, 2014, which evaluated the results of the Shen 3 appraisal well and whether the costs associated with the well qualified for suspension under ASC 932-360-25.²⁵⁴ Within that memorandum, Property Accounting personnel noted the following regarding the results of the Shen 3 well: “While hydrocarbons were not found in this well-bore, geologic, fluid and pressure data obtained from this well has raised the confidence level of the resources of the field and has contributed to the ongoing development of the Shenandoah project. Therefore, it is appropriate to continue capitalization of this well cost as suspended well cost, pending the determination of proved reserves for the Shenandoah project. Anadarko continues to make progress.”²⁵⁵ The disclosure also is consistent with notes from the Q4 2014 Impairment

²⁵¹ AICPA, “Statement on Standards for Forensic Services,” ¶¶ 6–7.

²⁵² Regan Deposition, pp. 62:3–64:18.

²⁵³ Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 20, 2015, p. 9 (emphasis added).

²⁵⁴ Exhibit 490, APC-00001864–865.

²⁵⁵ Exhibit 490, APC-00001864–865 at 864.

Review meeting conducted between Anadarko's Property Accounting group and the Exploration Group, dated December 17, 2014, which include the following regarding the results of the Shen 3 appraisal well: "TD was reached and the sands were non hydro-carbon bearing. This well was drilled to the east of the original discovery well and down-dip to understand the extent of the reservoir. Pressure data collected in the well suggested that the oil/water contact was close to the appraisal well which increases the confidence in the resources of the field. Exploration would like to keep suspended since it was considered successful. Exploration is also evaluating future utility of the wellbore as a sidetrack, injection or development well."²⁵⁶

122. In his analysis, Mr. Regan cites a November 10, 2016 Anadarko memorandum to support his assertion that Anadarko "internally acknowledged that Shen-3 was 'unsuccessful' and therefore, did not satisfy the specific capitalization requirements established in ASC 932-360-25-18."²⁵⁷ However, Mr. Regan's discussion of this memorandum is incomplete and misleading. First, he fails to acknowledge that this memorandum is dated almost two years after Anadarko reached its decision to suspend the Shen 3 well costs as of December 31, 2014. In addition, the November 10, 2016 memorandum refers to the contemporaneous analysis of Shen 3 well costs in December 2014, when the Property Accounting group "reached the conclusion in Q4 2014 to suspend the well costs, despite the fact that the sands encountered were non-hydrocarbon bearing, based on understanding from conversations with Exploration, and a subsequent email dated December 17, 2014, that the well projected the oil-water contact and **resulted in higher confidence in, and thus an increase to, the estimated resources for the Shenandoah project.**"²⁵⁸ The original analysis contemplated the guidance in ASC 932-360-25-18, and noted the following:

"Property Accounting documented its conclusion to continue capitalization of the well as a suspended well in a memo drafted December 29, 2014. The memo noted that pressure data collected in this appraisal well could be used to project an oil-water contact between the discovery and appraisal well and since the projected oil-water contact was close to the appraisal well, the data suggested a higher confidence (and therefore increase) in the resources of the field. **This was considered a successful appraisal well to determine the extent of the reservoir.** The memo also noted that while hydrocarbons were not found in this wellbore, geologic, fluid and pressure data obtained from the well raised the confidence level of the resources of the field and contributed to the ongoing development of the

²⁵⁶ APC-00154334-338 at 336.

²⁵⁷ Regan Report, ¶¶ 58, 60–61.

²⁵⁸ APC-00002132-135 at 132 (emphasis added).

Shenandoah project. Therefore, it was determined to be appropriate to continue capitalization of this well cost as suspended well cost, pending the determination of proved reserves for the Shenandoah project.”²⁵⁹

123. Therefore, Mr. Regan fails to acknowledge that the contemporaneous conclusion that Shen 3 was a “successful” appraisal well under ASC 932-360-25-18 was based on Property Accounting’s understanding at that time that data from Shen 3 suggested an increase in the estimated resources of the field.²⁶⁰ Ms. Green testified that the Property Accounting group later determined that their understanding was incorrect, and that Shen 3 did not specifically increase the estimated resources of the field. Accordingly, Shen 3 was later determined to be “unsuccessful under ASC 932-360-25-18” given Property Accounting’s updated understanding.²⁶¹ As a result, contrary to Mr. Regan’s claims, the November 10, 2016 memo’s statement that Shen 3 was “unsuccessful under ASC 932-360-25-18” is not evidence that Anadarko affirmed that Shen 3 well costs “were not capitalizable under applicable GAAP as of December 31, 2014,” but simply that the estimated resources in the field had not increased.²⁶² As described above, GAAP does not require that an exploratory-type stratigraphic test well lead to an increase in the estimated level of resources in the field in order to justify suspending its costs.

124. Additional evidence produced in this matter demonstrates that Anadarko Property Accounting personnel acknowledged, at the time that the determination was made to suspend the Shen 3 well costs, that the well did not encounter hydrocarbons within the well bore. Ms. Green testified that encountering hydrocarbons in the well bore was not a requirement for suspension based on the Property Accounting group’s interpretation of relevant guidance. Specifically, Ms. Green testified that the Property Accounting group “had [an] interpretation that was slightly different based on stratigraphic test wells that may not have hydrocarbons in the wellbore. [...] [I]n lots of situations, you have an accounting policy that’s based on GAAP and has facts and circumstances and different circumstances arise, you may take that offline and consider it an interpretation.”²⁶³

²⁵⁹ APC-00002132-135 at 132-133 (emphasis added).

²⁶⁰ APC-00002132-135 at 132-133; Green Deposition, pp. 78:12-18, 92:24-93:11.

²⁶¹ Green Deposition, p. 102:17-22 (“Q: Shenandoah 3 was considered unsuccessful under ASC 932-360-25-18 because it was a dry hole; correct? A: So at – at third quarter of 2016, when we learned that the resource estimate had decreased, we considered it unsuccessful under paragraph 25-18.”).

²⁶² Regan Report, ¶ 61.

²⁶³ Green Deposition, p. 64:6-23.

125. Mr. Regan's analysis does not address the Property Accounting group's interpretation of ASC 932-360 that encountering oil within the well bore of a deepwater appraisal well is not a requirement for suspension of the costs associated with that appraisal well, much less demonstrate how this interpretation is unreasonable. Instead, Mr. Regan asserts that the only interpretation of ASC 932-360 precludes the suspension of the costs associated with a deepwater appraisal well (*i.e.*, Shen 3) should hydrocarbons not be found within the well bore of that appraisal well.²⁶⁴

126. Not only does this methodology fail to meet the criteria for a competent and diligent analysis, it also is inconsistent with the facts and circumstances of ultra deepwater drilling. Ms. Green provided testimony highlighting this inconsistency. Specifically, Ms. Green was asked whether FAS 19 required the expensing of costs associated with an exploratory well should "proved reserves have not been found as a result of the drilling of that particular well."²⁶⁵ In response, Ms. Green testified:

"I would say that is correct on a -- on a straightforward exploratory onshore well, that's -- that is not necessarily the case directly on an offshore project that requires multiple appraisal wells to determine whether you actually have FID on that project and can record proved reserves for that project. [...] I'm just saying that the literal wording of [FAS 19] always -- you know, generally would always apply to an onshore well that is being drilled. However, when you have a significant offshore project, that could require multiple appraisal wells to determine whether you actually can get to prove reserves on it, I'm saying that's where the difference is. [...] [Y]ou don't generally drill an initial well in the Gulf of Mexico and initially in a -- in a significant offshore development project and book proved reserves on the basis of that single well alone. That's -- that's the full basis of, you know, the exploration GAAP that we have where it has the -- the two levels of did the well find sufficient reserves to justify its completion, and is the company making sufficient progress towards getting that determination as to whether you would have proved reserves."²⁶⁶

127. Ms. Green's testimony demonstrates another fundamental flaw in Mr. Regan's interpretation of ASC 932-360: Specifically, Mr. Regan interchangeably uses the terms "hydrocarbons" and "reserves" in his analysis. While Mr. Regan acknowledges that GAAP defines "reserves" to mean "estimated remaining quantities of oil and gas and related substances anticipated to be economically producible," he improperly states that "the absence of

²⁶⁴ Regan Report, ¶ 48; Regan Deposition, pp. 62:3–64:18.

²⁶⁵ Green Deposition, p. 32:8–13.

²⁶⁶ Green Deposition, pp. 32:8–33:22.

hydrocarbon reflects...the absence of ‘reserves’ under GAAP.”²⁶⁷ Mr. Regan fails to consider that “reserves” is a quantity of hydrocarbons that are anticipated to be *economically producible*, *i.e.*, that justify the cost of exploration and development. Notably, ASC 932-360 specifically does not state that companies must find hydrocarbons in a particular exploratory well to qualify for capitalization of those associated drilling costs. Rather, ASC 932-360’s use of the term “reserves” or “proved reserves” in place of “hydrocarbons” or “resources” may reasonably be interpreted to suggest that the assessment of whether certain well costs can be suspended is based on more than just whether there are hydrocarbons within an individual wellbore.

128. This interpretation is also consistent with the technical and economic challenges associated with ultra deepwater drilling, generally, and exploratory-type stratigraphic test wells, specifically. As described in Section III.B, ultra deepwater exploratory-type stratigraphic test wells (such as Shen 3) cost hundreds of millions of dollars and are typically not drilled with the intention of being oil producing.²⁶⁸ The objective of an appraisal program is to obtain information about the size and extent of the reservoir. Therefore, the purpose of drilling each individual Shenandoah appraisal well was to determine whether sufficient reserves existed in the Shenandoah reservoir as a whole, and not whether reserves existed in any single well bore. As Ms. Green testified, “you don’t generally drill an initial well in the Gulf of Mexico [or] in a significant offshore development project and book proved reserves on the basis of that single well alone.”²⁶⁹

129. Anadarko never assessed reserves based on each individual appraisal well in its deepwater exploration projects and it never booked (*i.e.*, reported) reserves for the Shenandoah field during its time as the operator.²⁷⁰ For example, Anadarko disclosed that “[p]rojects with suspended exploratory well costs are those identified by management as exhibiting sufficient quantities of hydrocarbons to justify potential development and where management is actively

²⁶⁷ Regan Report, fn. 2.

²⁶⁸ An exception is Shen 6, which was drilled with the intention of ultimately serving as a development well should the Shenandoah appraisal program conclude with the sanctioning of the Shenandoah field.

²⁶⁹ Green Deposition, pp. 33:12–16, 79:19–80:7.

²⁷⁰ Green Deposition, pp. 63:15–64:11, 81:3–82:9; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2017, filed on February 15, 2018, p. 67. Anadarko also disclosed in its financial statements that “[i]f an exploratory well provides evidence to justify potential completion as a producing well, drilling costs associated with the well are initially capitalized, or suspended, pending a determination as to *whether a commercially sufficient quantity of proved reserves can be attributed to the area as a result of drilling.*” (emphasis added). See, Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 20, 2015, p. 95.

pursuing efforts to assess whether reserves can be attributed to *these projects*.²⁷¹ Therefore, under Mr. Regan’s interpretation, none of the costs associated with any individual Shenandoah well (Shen 1 through Shen 6) would have qualified for suspension as they did not find “reserves” individually.

4. Mr. Regan Fails to Perform a Thorough Analysis

130. The rigor of an analysis of Anadarko’s accounting determinations is guided by the AICPA Forensic Standards, and in particular, the general standard of due professional care.²⁷² Mr. Regan’s analysis of Anadarko’s accounting determinations related to the Shen 3 well costs fails to evaluate the evidence in a rigorous manner, leading to a misleading presentation of the evidence. As a result, Mr. Regan’s analysis fails to meet the requirements of due professional care set forth in the AICPA Forensic Standards, as well as the requirement for an evaluation of an accounting judgment to include sufficient “time and effort spent [considering] the judgment.”²⁷³

131. For example, as support for his assertion that “poor results of the Shen-3 drilling effort appear to have been evident to Anadarko as early as November 2014,” Mr. Regan cites one slide attached to an internal Anadarko e-mail, dated November 24, 2014, which includes a proposed schedule assuming “[b]ad news” from Shen 3.²⁷⁴ Mr. Regan’s discussion of this e-mail suggests that this was the only proposed schedule prepared and that it was concluded that the results of Shen 3 were “[b]ad news” as of this date.²⁷⁵ This is incorrect. Mr. Regan fails to note that there were other proposed schedules prepared, including one that considered a “Success Shen 3” scenario.²⁷⁶ Mr. Regan also fails to note that the very e-mail he cites includes a project timeline with plans to drill Shen 4 as the next appraisal well and Shen 5 as a “keeper” well, demonstrating the commitment of the Partners to the continued development of the Shenandoah Project following the results of Shen 3.

²⁷¹ Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 20, 2015, p. 103 (emphasis added).

²⁷² AICPA, “Statement on Standards for Forensic Services,” ¶ 6.

²⁷³ AICPA, “Statement on Standards for Forensic Services,” ¶ 6; CIFR Report, p. 95.

²⁷⁴ Regan Report, ¶ 41; APC-00147963.

²⁷⁵ Regan Report, ¶ 41.

²⁷⁶ APC-00853569.

132. Mr. Regan cites communications among the Partners of the Shenandoah Project to assert that a “dry hole case” in the context of Shen 3 would mean that the well “encounter[ed] wet sands.”²⁷⁷ Mr. Regan uses this assertion to support his opinion that because Shen 3 encountered “wet sands,” it should be considered a “dry hole case” and, therefore, immediately expensed. However, Mr. Regan’s discussion of this internal communication is misleading for several reasons. First, he fails to acknowledge that this communication was not among financial reporting personnel of the Partners and did not relate to financial reporting determinations. Instead, the document Mr. Regan cites is an “Authorization for Expenditure” (“AFE”) that proposes to initiate the drilling of Shen 3, and the discussion within the document relates to the proposed drilling costs of the well, not the financial reporting related to the well.²⁷⁸ Second, Mr. Regan fails to acknowledge the deposition testimony of, among others, Mr. Leyendecker, who provided testimony related to this specific document cited in the Regan Report. Specifically, Mr. Leyendecker testified that the “dry hole case” and “success case” terminology included in this document were terms used by drilling personnel within Anadarko to refer to the “cost estimate for drilling.”²⁷⁹ This testimony is consistent with testimony provided by other Anadarko personnel regarding this specific document, including Mr. Daniels (Executive Vice-President of International and Deepwater Exploration).²⁸⁰ Mr. Regan has not addressed this deposition testimony in his analysis. Finally, Mr. Regan fails to acknowledge that the “success” case scenarios differ among the various AFEs and encountering oil is not always a requirement. For example, the AFE for the substitute Shen 2 appraisal well indicated that a “success” case “includes encountering correlative D and/or E sands, at a minimum, whether oil bearing or not.”²⁸¹ This example underscores the testimony of Anadarko’s personnel that the “success case” and “dry hole case” terminology were terms that did not have any bearing on Anadarko’s financial reporting under GAAP.

133. To support his assertion that Shen 3 was known to have encountered no hydrocarbons prior to the issuance of Anadarko’s financial statements for the fiscal year ended December 31, 2014, Mr. Regan cites a whistleblower report filed by Lea Frye (a Senior Staff Reservoir

²⁷⁷ Regan Report, ¶ 50.

²⁷⁸ Exhibit 491, APC-00005093–100.

²⁷⁹ Leyendecker Deposition, pp. 115:1–117:15.

²⁸⁰ Deposition of Robert Daniels, October 13, 2022, pp. 29:23–30:4, 72:19–21, 154:10–22.

²⁸¹ APC-01741046.

Engineer on the Shenandoah Project) in May 2016 and affirmations made by “outside consultants hired by the Company” in response to Ms. Frye’s allegations.²⁸² However, Mr. Regan fails to demonstrate how this evidence is relevant to the financial reporting determinations made by Anadarko in connection with its financial statements for the fiscal year ended December 31, 2014. Specifically, he fails to demonstrate what information alleged by Ms. Frye or “affirmed” by the outside consultants was known by Anadarko as of the filing of its financial statements for the fiscal year ended December 31, 2014.

134. In an attempt to support his assertion that the costs associated with an appraisal well would only qualify for suspension should the individual well encounter sufficient quantities of hydrocarbons to justify its cost, Mr. Regan cites deposition testimony from Ms. Green, which he uses to support the assertion that “wells are to be assessed individually under the successful efforts method and ASC 932-360.”²⁸³ This is misleading and disregards the context and complete testimony of Ms. Green. Specifically, immediately preceding the portion of testimony cited by Mr. Regan, Ms. Green testified:

“Q. So the -- the policy requires that reserves need to be found in the well, not on a project basis?

A. Our interpretation, the way we applied this for exploratory stratigraphic wells that were non-hydrocarbon bearing, was based on the information that was provided by that well – by that well and the overall impact that that had on the resources or the reserves that would be booked at FID.

Q. Based on the well?

A. Based on the information from the well.”²⁸⁴

135. Immediately following the deposition testimony cited by Mr. Regan, Ms. Green testified as follows:

“Q. But looking back at Exhibit 332, at that same paragraph, it says, ‘In certain circumstances, an exploratory well finds reserves, but those reserves cannot be classified as proved when drilling is completed.’ As you testified, that’s the first step?

A. That is -- that is the first criteria, yes, that if there are reserves in the wellbore that justify its completion, yes, you would continue capitalization. The interpretation that we had at

²⁸² Regan Report, ¶ 41.

²⁸³ Regan Report, ¶ 56.

²⁸⁴ Green Deposition, pp. 81:25–82:11.

Anadarko was for exploratory-type stratigraphic wells whether -- where there were not hydrocarbons in the wellbore, and it happened in limited circumstances, we would also consider was there substantive positive evidence gained in the information we got from drilling that well related to the overall project.”²⁸⁵

136. Contrary to Mr. Regan’s suggestion that Ms. Green’s testimony supports his interpretation of ASC 932-360, a more thorough review of Ms. Green’s testimony (which Mr. Regan failed to present in his analysis) demonstrates the opposite: the interpretation of ASC 932-360 by Anadarko’s Property Accounting group did not require that appraisal wells encounter within their own well bores sufficient hydrocarbons to justify their construction costs in order to qualify for suspension.²⁸⁶

137. As support for his assertion that the Sufficient Quantity criterion for determination of whether to suspend the costs associated with appraisal wells should be evaluated on an individual well basis, Mr. Regan cites the expensing of “certain specific unsuccessful well efforts during Q3 2016 within [Anadarko’s] Tubarao Tigre and Mozambique exploration project areas.”²⁸⁷ However, Mr. Regan’s analysis of these wells fails to correctly evaluate the cited evidence.

138. Mr. Regan suggests that these wells were expensed because they did not locate sufficient hydrocarbons within their individual well bores to satisfy the Sufficient Quantity criterion, but his report fails to address the actual justification for why these wells were ultimately expensed as of September 30, 2016. With respect to the Tubarao Tigre wells included in Mr. Regan’s analysis, the memorandum Mr. Regan cited makes clear that costs associated with Tubarao Tigre #1 and Tubarao Tigre #2, which were initially suspended in 2014 and 2015, respectively, were both expensed in Q3 2016 due to Anadarko’s failure to **continue to** comply with the Sufficient Progress criterion. KPMG’s review memorandum, cited by Mr. Regan, clearly states “in Q3 2016[, Anadarko] determined the wells should be expensed as a result of the Company deciding to delay drilling in the area.”²⁸⁸ The memorandum further stated “in Q3 2016, in response to the global commodity price decline along with the complexity of the wells, the Company has decided to delay additional drilling activities for both the Tubarao Tigre #1 and #2 wells for

²⁸⁵ Green Deposition, pp. 83:21–84:13

²⁸⁶ Green Deposition, pp. 81:25–84:13.

²⁸⁷ Regan Report, ¶ 55.

²⁸⁸ KPMG_APc_eA_0007469–475 at 473.

several years, and possibly more depending on market condition activity.”²⁸⁹ The memorandum does not address the Sufficient Quantity criterion.

139. The same memorandum also addressed Anadarko’s decision to expense the costs associated with the Orca #4 well as of September 30, 2016. These costs had been suspended since the drilling of the well in December 2014²⁹⁰ and were expensed in Q3 2016 because updated geological mapping had determined that Orca #4 was no longer geologically associated with the other Orca wells.²⁹¹ The KPMG memorandum cited by the Regan Report does not indicate that the decision to expense the Orca #4 well was based on its failure to meet the Sufficient Quantity criterion based on an evaluation of the hydrocarbons located in the well bore itself. Therefore, Mr. Regan’s suggestion that these appraisal wells were expensed in Q3 2016 due to their failure to meet the Sufficient Quantity criterion (as interpreted by Mr. Regan) is based on erroneous evaluation of the cited evidence.

5. Mr. Regan’s Analysis Fails to Address the Contemporaneous Conclusions of Other Accounting Professionals

140. In order to perform a competent and diligent analysis of Anadarko’s financial reporting determinations related to the Shen 3 appraisal well, as well as to meet the AICPA Forensic Standards, Mr. Regan was required to consider all relevant contemporaneous accounting determinations reached by other accounting professionals. Mr. Regan’s analysis does not do so, and, as a result, his opinions are unreliable.

a) Mr. Regan Fails to Reconcile His Opinions with the Professional Judgment of Anadarko’s Partner in the Shenandoah Project

141. As support for his assertion that Anadarko’s financial reporting determinations related to the Shen 3 drilling costs violated GAAP, Mr. Regan cites the accounting determinations made by certain Partners to the Shenandoah Project. Specifically, Mr. Regan states “two of Anadarko’s Shenandoah project partners, including Conoco (its partner with a percentage interest in the project equal to Anadarko) and Marathon, recognized the need to write off Shen-3 related

²⁸⁹ KPMG_APc_eA_0007469–475 at 473.

²⁹⁰ APC-00284670–693 at 678.

²⁹¹ KPMG_APc_eA_0007469–475 at 474.

drilling costs as of December 31, 2014.”²⁹² However, Mr. Regan fails to address the accounting determinations reached by another Partner of the Shenandoah Project: Cobalt, which suspended at least a portion of the Shen 3 cost. The fact that different partners made different accounting determinations suggests that exercising professional judgement could lead to a range of reasonable interpretations of GAAP guidance.

142. Cobalt, which held a 20% interest in the Shenandoah Project, included the following disclosure in its 2014 Annual Report: “The Shenandoah #3 appraisal well was spud in the second quarter of 2014 and evaluated the same well-developed reservoir sands 1,500 feet down-dip and 2.3 miles east of the first appraisal well. This well found an expanded geologic reservoir section, confirmed excellent reservoir qualities and delineated the potential oil-water contacts of the field. Planning is currently underway for another appraisal well, which we expect will be spud in the second quarter of 2015.”²⁹³ In its disclosure of “dry hole expense and impairment” related to its Gulf of Mexico reporting segment, Cobalt disclosed that it expensed approximately \$5 million related to the bypass portion of the Shen 3 appraisal well.²⁹⁴ Cobalt did not expense costs associated with the remainder of the Shen 3 appraisal well, indicating that, based on the results of the Shen 3 well, Cobalt determined that it was reasonable, under GAAP, to suspend the remaining Shen 3 well costs.²⁹⁵ Although the Regan Report acknowledges Cobalt’s determination, Mr. Regan does not reconcile this accounting determination, which aligned with Anadarko’s, with his opinion that GAAP required Anadarko to expense Shen 3 well costs and that Anadarko’s accounting determination therefore violated GAAP.²⁹⁶

b) Mr. Regan Fails to Address the Work and Related Conclusions of Anadarko’s Auditor

143. As a publicly traded, SEC-registered company, Anadarko is subject to annual audits and quarterly reviews of its consolidated financial statements.²⁹⁷ As Anadarko’s auditor, KPMG is

²⁹² Regan Report, ¶ 41 (footnotes in original omitted).

²⁹³ Cobalt International Energy, Inc., Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 23, 2015, p. 5.

²⁹⁴ Cobalt International Energy, Inc., Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 23, 2015, p. 77.

²⁹⁵ Cobalt International Energy, Inc., Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 23, 2015, p. 77.

²⁹⁶ Regan Report, fn. 37. See also, Regan Report, Exhibit A, p. 3.

²⁹⁷ SEC, “Financial Reporting Manual,” § 1110.1.

required to conduct its audits and reviews of Anadarko's consolidated financial statements in accordance with generally accepted auditing standards ("GAAS"), which, for public companies, are set by the PCAOB ("PCAOB Standards").²⁹⁸ The PCAOB also requires public accounting firms, including KPMG, and their associated persons (referred to generally as "practitioners") to comply with various professional practice standards.²⁹⁹

144. The purpose of an audit of financial statements by the independent auditor "is the expression of an opinion on the fairness with which they present, in all material respects, financial position, results of operations, and its cash flows in conformity with generally accepted accounting principles."³⁰⁰ PCAOB Standards require the auditor to "obtain reasonable assurance about whether the financial statements are free of material misstatement, whether caused by error or fraud."³⁰¹ KPMG's audit included "examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements" and "assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation."³⁰²

145. KPMG performed audit procedures to test Anadarko's suspended well costs as of December 31, 2014, including the Shen 3 well costs, as documented in the "GG.4.A.8.05 Suspended Well Costs Memo" workpaper dated January 15, 2015.³⁰³ The purpose of the workpaper was to "test [Anadarko's] suspended well costs as of 12/31/2014 for completeness, accuracy, and presentation, in support of the completeness, accuracy, valuation, and presentation of PP&E (specifically AUC)."³⁰⁴ Specifically, KPMG documented that it "inquired as to the plans for Shenandoah #3 and notes that the rig was released from Shenandoah #3 on 1/2/2015.

²⁹⁸ PCAOB, "Standards," available at <https://pcaobus.org/oversight/standards>; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 20, 2015, p. 87; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2015, filed on February 17, 2016, p. 85; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2016, filed on February 17, 2017, p. 85; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2017, filed on February 15, 2018, p. 88.

²⁹⁹ PCAOB, "Standards," available at <https://pcaobus.org/oversight/standards>.

³⁰⁰ PCAOB Interim Standard AU Section 110.01.

³⁰¹ PCAOB Interim Standard AU Section 110.02.

³⁰² Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 20, 2015, p. 87; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2015, filed on February 17, 2016, p. 85; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2016, filed on February 17, 2017, p. 85; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2017, filed on February 15, 2018, p. 88.

³⁰³ Exhibit 485, KPMG_APc_eA_0002511-529.

³⁰⁴ Exhibit 485, KPMG_APc_eA_0002511-529 at 511.

Per the Q4 Operations report, the approximately 1.5 times more of the same well-developed reservoir that the Shenandoah-2 well found. The well confirmed the sand depositional environment, lateral sand continuity, reservoir qualities and down-dip thickening. It also enabled the projection of oil/water contacts based on pressure data, and reduced the uncertainty of the resource range.”³⁰⁵ As a result, KPMG concluded, “the activities mentioned above are indicative of sufficient progress per FASB 932-360-35 as costs are being incurred to assess reserves and their potential development.”³⁰⁶

146. Mark Zajac, the KPMG partner responsible for KMPG’s audits of Anadarko’s financial statements during the Class Period, provided deposition testimony in this matter that gives additional insight into the work performed by KPMG and the firm’s conclusion regarding the propriety of Anadarko’s accounting for the Shen 3 appraisal well as of December 31, 2014.³⁰⁷

147. For example, Mr. Zajac testified as to his interpretation of ASC 932-360 with respect to the implementation of the Sufficient Quantity criterion. Specifically, Mr. Zajac testified:

“Q. And why would it have been important for KPMG to know whether or not a dry hole had been drilled?

A. As it relates to suspended wells? [...] It may or may not matter. If the initial well that was drilled found sufficient quantities of -- of resources to justify continued appraisal of the project, whether subsequent wells are or are not a dry hole, may or may not matter.

Q. And why is that?

A. When you -- when you look at a project that’s rather significant and in deep water and, you know, very -- very deep under the ground, there’s only so much you can do from the surface to understand a formation. And so, you know, drilling a [...] single one well, you’ll find resources, but that in itself is insufficient information typically to con- -- to produce from that well and to invest the capital necessary to do so. And so, the company or a company would undertake appraisal wells to understand the reservoir and to gain information about how best to exploit and develop the field.”³⁰⁸

148. Mr. Zajac’s interpretation of the Sufficient Quantity criterion is consistent with that testified to by Ms. Green in her deposition, and inconsistent with what Mr. Regan purports to be the only interpretation of ASC 932-360. Specifically, Mr. Zajac testified that, based on his

³⁰⁵ Exhibit 485, KPMG_APc_eA_0002511-529 at 514.

³⁰⁶ Exhibit 485, KPMG_APc_eA_0002511-529 at 514.

³⁰⁷ Deposition of Mark L. Zajac, November 2, 2022 (“Zajac Deposition”), pp. 21:11–22:2.

³⁰⁸ Zajac Deposition, pp. 65:5–66:9.

interpretation of the relevant literature (*i.e.*, ASC 932-360), an appraisal well may qualify for initial suspension even if it is determined to be a “dry hole” (*i.e.*, no hydrocarbons are found in the appraisal well bore). Mr. Regan has not addressed the interpretation of ASC 932-360 testified to by either Ms. Green or Mr. Zajac, nor has he addressed how he reconciles his opinion with this contradictory evidence.

6. Mr. Regan’s Conditions Do Not Require Anadarko to Have Expensed Shen 3 Well Costs as of December 31, 2014

149. Mr. Regan’s opinions regarding Anadarko’s purported failure to appropriately expense Shen 3 well costs are predicated on “Condition 1” and “Condition 2” set forth at the beginning of his Report.³⁰⁹ Specifically, Mr. Regan states “Anadarko’s required expensing of Shen-3 drilling costs under GAAP is further supported by [...] Condition 1.”³¹⁰ When summarizing evidence that Mr. Regan purports to establish that “Shen-3 found no hydrocarbons,” he cites his “Condition 2.”³¹¹

150. As an initial matter, it is unclear why Mr. Regan’s opinions include these stipulated “Conditions.” Each relates to judgmental determinations that would have been evaluated by Anadarko’s accounting personnel in the course of financial reporting determinations related to the Shen 3 well (as well as the Shenandoah field more broadly with respect to “Condition 3”). By stipulating to these Conditions, Mr. Regan in effect assumes the answer to a question that Anadarko was required to analyze and answer in order to reach the accounting determinations at issue in this matter. Mr. Regan’s reliance on these Conditions means that his analysis disregards the professional judgments made by Anadarko’s accounting personnel.

151. These professional judgments reached by Anadarko’s accounting personnel were based on information that was available to the Company at the time its financial statements were issued. Mr. Regan’s Conditions are not. For example, Mr. Regan cites deposition testimony

³⁰⁹ Regan Report, ¶ 2 (“In connection with my assignment, I have been asked to assume that Plaintiffs will establish each of the following: a. As of December 31, 2014 and throughout the Relevant Period, it was unlikely that the completed stratigraphic exploration well referred to as Shenandoah-3 (‘Shen-3’) would be used as an injection or other type of service well in the development phase of the Shenandoah project (‘Condition 1’). b. The findings of the Company’s Shen-3 exploration wellbore, together with its findings of its prior wellbores, resulted in a material reduction to the estimated possible resources within the Shenandoah field as of Anadarko’s Q4 2014 financial reporting period (‘Condition 2’).”).

³¹⁰ Regan Report, ¶ 40.

³¹¹ Regan Report, fn. 46.

related to a November 2016 Anadarko memorandum as evidence that is “consistent with Condition 2.”³¹² It is inappropriate for Mr. Regan to cite this memorandum as support for Condition 2 because the memorandum relates to a period after the relevant accounting determination. Anadarko reached its decision to suspend the Shen 3 well costs as of December 31, 2014 based on the information that was available to it as of the issuance of those financial statements. Given that Mr. Regan is opining on the reasonableness of Anadarko’s accounting determinations, his analysis must be limited to that information, and not incorporate evidence that was generated after the issuance of the financial statements.

152. Even if one were to look beyond these fundamental flaws in Mr. Regan’s Conditions, neither of Mr. Regan’s Conditions are determinative of Anadarko’s accounting for the Shen 3 well costs as of December 31, 2014. As demonstrated above, a reasonable interpretation of ASC 932-360 would not preclude suspension of the costs associated with an appraisal well should that appraisal well not encounter hydrocarbons within the well bore.³¹³ Mr. Zajac provided testimony consistent with this interpretation, stating that it “may or may not matter” whether an appraisal well is a dry hole, given the determination of whether to suspend the costs would also need to consider the results of other appraisal wells drilled within the same resource field.³¹⁴ Therefore, the relevance of Mr. Regan’s Condition 1 and Condition 2 is unclear. Mr. Regan has provided no analysis to demonstrate the relevance of either of these Conditions to the determination of whether the suspension of the costs associated with Shen 3 as of December 31, 2014 was consistent with a reasonable interpretation of ASC 932-360. Accordingly, neither of these Conditions is determinative of whether the costs associated with Shen 3 should have been suspended as of December 31, 2014.

VIII. Mr. Regan’s Opinion That Anadarko’s Q3 2016 Accounting Determination “Has No Basis Under GAAP” Is Misleading

153. Mr. Regan opines that Anadarko’s financial reporting determinations related to the potential utility of Shen 3 as a water injector “has no basis under GAAP and is fundamentally

³¹² Regan Report, fn. 46; Green Deposition, pp. 92:24–94:19.

³¹³ See, Section VII.A.

³¹⁴ Zajac Deposition, pp. 65:5–66:9 (“It may or may not matter. If the **initial well** that was drilled found sufficient quantities of -- of resources to justify continued appraisal of the project, whether subsequent wells are or are not a dry hole, may or may not matter.” (emphasis added)).

flawed.”³¹⁵ However, Mr. Regan fails to support this opinion with competent and diligent analysis. As described in more detail in the following section, Mr. Regan’s analysis regarding Anadarko’s accounting for the Shen 3 well costs as of September 30, 2016 is flawed and unreliable. Specifically, it reiterates Mr. Regan’s same flawed interpretation of ASC 932-360; is predicated on an evaluation of superseded and non-authoritative guidance; is predicated on an incomplete assessment of relevant GAAP; is not supported with thorough analysis; is biased by hindsight; and is not reconciled with the contemporaneous conclusions of other accounting professionals. Mr. Regan fails to demonstrate that, to conform with GAAP, Anadarko was required to expense the Shen 3 well costs prior to September 30, 2016.

A. Mr. Regan Reiterates His Same Flawed Arguments Regarding the Capitalization of Shen 3 Well Costs Under ASC 932-360-25-18

154. In his evaluation of Anadarko’s accounting for the Shen 3 well costs as of September 30, 2016, Mr. Regan reiterates his interpretation of ASC 932-360 and asserts that his interpretation is the only interpretation of the guidance.³¹⁶

155. Specifically, Mr. Regan asserts that the Shen 3 well costs “were not capitalizable under applicable GAAP” because “Shen-3 found no hydrocarbons.”³¹⁷ As established above in Section VII.A, a reasonable interpretation of ASC 932-360 does not preclude suspension of Shen 3 well costs should hydrocarbons not be found in the well bore. Again, this interpretation is consistent with testimony provided by other accounting professionals who evaluated the results of the Shen 3 appraisal well and Anadarko’s decision to suspend the costs associated with this well until September 30, 2016.³¹⁸

156. Therefore, Mr. Regan’s assessment of Anadarko’s accounting for the Shen 3 well costs as of December 31, 2016 is based on the same incomplete assessment of ASC 932-360 that Mr. Regan used to assess Anadarko’s accounting for Shen 3 as of December 31, 2014 and the erroneous assertion that this interpretation of ASC 932-360 is the only interpretation.³¹⁹ Again,

³¹⁵ Regan Report, ¶ 60.

³¹⁶ Regan Report, ¶ 39 (“Accordingly, Anadarko **was required to** expense the cost of drilling Shen-3 within the Company’s annual and quarterly period ended December 31, 2014, as detailed below.” (emphasis added)); Regan Deposition, pp. 62:3–64:18.

³¹⁷ Regan Report, ¶ 61.

³¹⁸ See, e.g., Zajac Deposition, pp. 65:5–66:9.

³¹⁹ Regan Deposition, pp. 62:3–64:18.

this incomplete assessment, as well as Mr. Regan’s assertion that his interpretation of ASC 932-360 is the only interpretation of the guidance, renders his related opinion unreliable.

B. Mr. Regan’s Opinion Is Predicated on an Evaluation of Superseded and Non-Authoritative Guidance

157. As described in Section V.A, registrants are required to prepare their financial statements in accordance with GAAP.³²⁰ The Codification is the source of authoritative GAAP. Any assessment of Anadarko’s accounting determinations must be based on authoritative GAAP (as set forth in the Codification) as it existed at the time Anadarko issued its financial statements. Even if superseded and non-authoritative guidance contains language that is identical to authoritative GAAP, the Report would need to explain that the cited, non-authoritative guidance is identical to the language in the Codification and an explanation for preferring a non-authoritative source.

158. As part of his analysis in support of his opinion that Anadarko’s accounting for the Shen 3 well costs as of September 30, 2016 had “no basis under GAAP,” Mr. Regan cites superseded and non-authoritative guidance.³²¹ Although Mr. Regan cites “ASC 932-360” as a whole, Mr. Regan fails to identify specific guidance in ASC 932-360 that establishes his assertion that a well originally intended to be an exploratory well cannot qualify for suspension under ASC 932-360-25-12 through 14.³²² Rather, Mr. Regan cites an AICPA Audit and Accounting Guide as support for his conclusion that Shen 3 drilling costs did not qualify as development costs under ASC 932-360-25-14.³²³ He also quotes a passage from FAS 19 that notes a distinction between exploratory dry holes and development dry holes.³²⁴ As described above, neither the AICPA Audit and Accounting Guide nor FAS 19 was authoritative at the time Anadarko reached its accounting determinations at issue in this matter.³²⁵

³²⁰ ASC 105-10-10.

³²¹ Regan Report, ¶¶ 60, 63, fn. 90.

³²² Regan Report, ¶ 63, fn. 90.

³²³ Regan Report, ¶ 63, fn. 90.

³²⁴ Regan Report, fn. 90.

³²⁵ See, Sections V.B and V.C.

C. Mr. Regan's Analysis Is Insufficient

159. As support for his assertion that he had not seen “contemporaneous objective evidence demonstrating that a ‘reasonable possibility’ existed that Shen-3 could be used as an injection well as of December 31, 2014,” Mr. Regan cites evidence related to communications from partners to the Shenandoah Project.³²⁶ However, this demonstrates that Mr. Regan’s analysis was not performed in a competent and diligent manner because it fails to address the preparer’s (*i.e.*, Anadarko’s) analysis of the transaction and instead substitutes the judgments of an external party with no effort to reconcile different conclusions.³²⁷

160. Specifically, Mr. Regan cites internal ConocoPhillips communications in which, according to Mr. Regan, ConocoPhillips “internally notified employees that Shen-3 was ‘fully water-wet,’ and was not likely to be considered as a future sidetrack well.”³²⁸ Mr. Regan’s analysis fails to evaluate relevant factual considerations, like the fact that Anadarko was the operator of the project, meaning that it was responsible for designing the development plan, not ConocoPhillips.³²⁹ Mr. Regan inappropriately implies that the Partners should reach identical accounting determinations. He fails to recognize that Partners reasonably may reach different accounting determinations based on, among other factors, their independent interpretations of the relevant guidance, their independent judgments regarding the results of the Shen 3 well, and expectations for future use of the well.³³⁰

D. Mr. Regan’s Analysis Is Biased by Hindsight

161. In order for Mr. Regan to perform a competent and diligent analysis, it is necessary for his analysis to consider the “relevant data” that was reasonably available at the time of the at-issue accounting determinations and not to consider data that only became available at a later date.³³¹ However, Mr. Regan’s analysis of Anadarko’s accounting for the Shen 3 well costs as of

³²⁶ Regan Report, ¶ 66.

³²⁷ CIFR Report, p. 95.

³²⁸ Regan Report, ¶ 66.

³²⁹ See, *e.g.*, Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2012, filed on February 19, 2013, p. 9; Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2013, filed on February 28, 2014, p. 9.

³³⁰ See, *e.g.*, Deposition of Lea Frye, October 7, 2022 (“Frye Deposition”), pp. 160:11–161:13.

³³¹ AICPA, “Statement on Standards for Forensic Services,” ¶ 6; CIFR Report, p. 95.

December 31, 2016 inappropriately considers data from subsequent time periods; therefore, his analysis is subject to hindsight.

162. For example, in further support of his assertion that he “[had] not seen contemporaneous objective evidence demonstrating that a ‘reasonable possibility’ existed that Shen-3 could be used as an injection well or a development well as of December 31, 2014,”³³² Mr. Regan cites the Q3 2016 analysis prepared by Anadarko related to the suspension of Shen 3 well costs.³³³

However, Mr. Regan has not established the relevance of this memorandum to his assessment of whether the capitalization of Shen 3 between Q4 2014 and Q2 2016 was acceptable.³³⁴

163. Mr. Regan does not establish that the Q3 2016 memorandum incorporated only information that was available at the time that Anadarko reached its accounting determinations related to the suspension of Shen 3 well costs during the period from Q4 2014 through Q2 2016. Instead, the Q3 2016 memorandum notes that during Q3 2016, a determination was made that the Shenandoah field would be developed using a semi-submersible platform (assuming the field was ultimately sanctioned).³³⁵ Due to the technical requirements of the semi-submersible platform, it was determined that the optimal locations for water injector wells were no longer at Shen 3, but instead on either side of Shen 3.³³⁶ Because this determination was not made until Q3 2016, it is inappropriate to use this information (and the related decision regarding the utility of Shen 3 as a service well) as a basis to conclude regarding the propriety of Anadarko’s accounting determinations prior to Q3 2016 (*i.e.*, “between Q4 2014 and Q2 2016”).³³⁷

E. Mr. Regan’s Analysis Fails to Address the Contemporaneous Conclusions of Other Accounting Professionals

164. In his analysis of Anadarko’s accounting for the Shen 3 well costs as of September 30, 2016, Mr. Regan failed to address the conclusions reached by other parties with “an appropriate level of professional expertise.”³³⁸ Specifically, Mr. Regan failed to address the conclusions

³³² Regan Report, ¶ 66.

³³³ Regan Report, ¶ 67.

³³⁴ Regan Report, ¶ 68.

³³⁵ APC-00002132–135 at 134.

³³⁶ APC-00002132–135 at 134.

³³⁷ Regan Report, ¶ 68.

³³⁸ CIFR Report, p. 95.

reached by Anadarko's auditor, KPMG, regarding the accounting for the Shen 3 well costs as of September 30, 2016.

165. As part of its review of Anadarko's financial statements for the third quarter of 2016, KPMG "perform[ed] review procedures over the completeness, existence and accuracy of [Anadarko's] dry hole expense" for the third quarter of 2016.³³⁹ In connection with these procedures, KPMG specifically reviewed the dry hole expense associated with the Shenandoah Project which, for Q3 2016, included the costs associated with the Shen 3 well. This review included an analysis of Anadarko's rationale for the expense as well as an evaluation of "possible impairment in surrounding areas."³⁴⁰

166. At the conclusion of its review procedures related to the expensing of the Shen 3 well costs as of September 30, 2016, KPMG documented the following conclusion regarding the propriety of that accounting determination:

"KPMG notes that the Shenandoah-3 well was considered exploratory in nature until Q1 2016, at which point, given the overall success of the Shenandoah play, the well was transferred to the Company's developmental team for further analysis. The Shenandoah-3 well was also a water drive reservoir, and as such required the use of a pressurized water to extract the resources. Once under the management of the developmental team, the Company began evaluating the results of the exploratory activities, as well as whether or not the water injection technology developed for the Shenandoah-3 well would be applicable for other Shenandoah and Gulf of Mexico wells. The development team began running various simulations utilizing the seismic information available. Then during Q3 2016, the development team determined based on their modeling of the well, its results, and the analysis over the water injection that the Shenandoah-3 well would not be used as a water injection site and that it was not economically useful for other wells in the play. As such, the determination was made to transfer the Shenandoah-3 well to dry hole expense during the 3rd quarter. KPMG notes that it is not unreasonable for the Company to take 6-8 months of analysis (from the time the well was transferred to the development team in Q1 2016 to the time the decision was made to dry hole in Q3 2016) to determine the economic viability of an offshore well given the depth of the drilling and the inherent uncertainty around deepwater exploratory wells. KPMG further notes that this timing is

³³⁹ KPMG_APc_eA_0007469–475 at 469.

³⁴⁰ KPMG_APc_eA_0007469–475 at 470.

consistent with offshore wells analyzed in prior year audits, and as such [we pass on further review].”³⁴¹

167. Thus, KPMG concluded and documented in its “Suspended Well Costs Memo,” dated October 20, 2016, that “based on the results of Shenandoah-5, the Company determined that it was no longer reasonably possible to use the Shenandoah-3 well in future development plans (*i.e.*, as a water injection site or sidetrack).”³⁴²

168. Mr. Zajac provided additional deposition testimony regarding the procedures undertaken by KPMG related to Anadarko’s decision to expense the Shen 3 well costs as of September 30, 2016. Specifically, Mr. Zajac testified that the accounting was discussed within KPMG among at least eight to 10 accounting professionals, including members of the firm’s professional practice group (which is typically responsible for consulting on challenging GAAP financial reporting issues encountered by the firm’s audit teams), the review partner from the Anadarko audit team, and the firm’s office of general counsel.³⁴³ These internal KPMG discussions included evaluation of whether expensing the Shen 3 well costs as of September 30, 2016 should be recorded as a correction of an error in Anadarko’s previously issued financial statements.³⁴⁴ As a result of this review, the conclusion of the accounting professionals from KPMG (as Mr. Zajac testified “not just [the conclusion] of the engagement team, but [the conclusion] concurred on by the national office”³⁴⁵) was that the expensing of Shen 3 as of September 30, 2016 did not constitute the correction of an error in Anadarko’s previously issued financial statements.³⁴⁶ This conclusion was reached in January 2017, and I have seen no evidence to suggest that KPMG has changed its assessment regarding Anadarko’s accounting for the Shen 3 well costs.³⁴⁷

169. At deposition, Mr. Regan testified that he did not recall that KPMG was “[in agreement] that it was appropriate to capitalize [Shen 3],” but rather that they did not take exception to

³⁴¹ KPMG_APc_eA_0007469–475 at 471. I note that, based on its Q3 2016 review procedures related to the expensing of the Shen 3 well costs, KPMG concluded: “given that there is currently drilling in the area and the success of the other Shenandoah wells, KPMG does not consider it unreasonable that the remaining Shenandoah wells were not expensed as dry holes.” I address this conclusion, and Mr. Regan’s failure to address this conclusion, in Section X.B.4.

³⁴² KPMG_APc_eA_0007382–399 at 382, 389.

³⁴³ Zajac Deposition, pp. 145:1–147:6.

³⁴⁴ Zajac Deposition, pp. 156:18–161:11; Exhibit 496, KPMG_APc_0026442–452.

³⁴⁵ Zajac Deposition, p. 167:6–25.

³⁴⁶ Zajac Deposition, p. 167:6–25.

³⁴⁷ Exhibit 494, KPMG_APc_eA_0009644–668.

Anadarko's Q3 2016 accounting for the Shen 3 well "based on materiality."³⁴⁸ This assertion is incorrect and contradicted by the deposition testimony of Mr. Zajac of KPMG.

170. Mr. Regan's analysis did not address KPMG's conclusion and did not provide an explanation as to why its conclusion is not reasonable. As a result, Mr. Regan failed to perform a competent and diligent analysis and, therefore, his opinions are unreliable.

F. Mr. Regan Fails to Establish that GAAP Required Anadarko to Expense Shen 3 Well Costs Prior to September 30, 2016

171. Mr. Regan opines that Anadarko's write-off of the Shen 3 well costs as of September 30, 2016 was "untimely."³⁴⁹ However, Mr. Regan fails to provide a reliable basis to justify his conclusion.

172. As set forth above, Mr. Regan's opinion is predicated on an incomplete and erroneous interpretation of relevant GAAP, as well as on an evaluation of superseded guidance that was not authoritative at the time that Anadarko reached its accounting determinations. In addition, his opinion is not based on thorough analysis. He failed to limit his analysis to facts that were reasonably available as of the date Anadarko made its accounting determinations, and he failed to reconcile his opinions with the contemporaneous conclusions of other accounting professionals. Because Mr. Regan failed to perform a competent and diligent analysis of Anadarko's accounting determinations, his opinion that the write-off of the Shen 3 well costs as of September 30, 2016 was "untimely" is unreliable. As a result, Mr. Regan fails to establish that the Shen 3 well costs did not qualify for suspension through June 30, 2016.

IX. Mr. Regan Fails to Demonstrate that the Shen 3 Drilling Costs Were Material to Anadarko's Financial Statements

173. Mr. Regan opines that "Anadarko's Shen-3 related accounting errors and disclosure omissions caused the Company's financial statements to be materially misstated as of and for the annual and/or quarterly periods between December 31, 2014 and June 30, 2015."³⁵⁰ However,

³⁴⁸ Regan Deposition, pp. 118:21–119:12.

³⁴⁹ Regan Report, ¶ 68.

³⁵⁰ Regan Report, ¶ 11.

Mr. Regan's analysis in support of this opinion fails to meet the criteria of a competent and diligent analysis.

174. Specifically, Mr. Regan's analysis is predicated on an evaluation of non-authoritative guidance, is not based on appropriate and reliable assumptions, and is not performed in a thorough manner. As a result, Mr. Regan's analysis regarding the materiality of the Shen 3 well costs to Anadarko's financial statements is unreliable.

A. Mr. Regan's Opinion Is Predicated on an Evaluation of Non-Authoritative Guidance

175. Prior to evaluating the implementation of Mr. Regan's materiality analysis, it is important to evaluate the guidance underpinning his materiality analysis. Specifically, Mr. Regan performs his materiality analysis following the guidance contained in SAB 99.³⁵¹ Despite Mr. Regan's claim that SAB 99 is "codified under GAAP at ASC 250-10-S99," SAB 99 is not GAAP.³⁵² Certain topics in the Codification include "SEC Sections," which are designated by an "S" preceding the Section number and may contain certain SEC rules, regulations, interpretive releases, or staff guidance related to that topic.³⁵³ These sections, which the FASB states are included for convenience, include both authoritative (*e.g.*, SEC rules) or non-authoritative (*e.g.*, SABs) guidance.³⁵⁴ As described below, Mr. Regan's claim that SAB 99 is "codified under GAAP" is incorrect and misleading.

176. As described previously, SAB 99 specifically states that "[t]he statements in the staff accounting bulletins are not rules or interpretations of the Commission, nor are they published as bearing the Commission's official approval."³⁵⁵ Therefore, SAB 99 is not authoritative GAAP and does not establish an authoritative basis to judge materiality for purposes of evaluating financial reporting determinations. Instead, SAB 99 provides the SEC Staff's view with respect to the evaluation of misstatements that are assessed to be quantitatively immaterial. As

³⁵¹ Regan Report, ¶ 71.

³⁵² Regan Report, ¶ 71. As described previously, SAB 99 specifically states that "[t]he statements in the staff accounting bulletins are not rules or interpretations of the Commission, nor are they published as bearing the Commission's official approval." See, SAB 99. The Codification establishes that only rules and interpretive releases of the SEC under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants. See, ASC 105-10-05-1.

³⁵³ ASC 105-10-05-4.

³⁵⁴ ASC 105-10-05-4.

³⁵⁵ SAB 99.

explained in SAB 99, “[t]his staff accounting bulletin expresses the views of the staff that exclusive reliance on certain quantitative benchmarks to assess materiality in preparing financial statements and performing audits of those financial statements is inappropriate; misstatements are not immaterial simply because they fall beneath a numerical threshold.”³⁵⁶

177. Materiality determinations are made in a wide variety of financial reporting contexts (*e.g.*, the determination of whether a business combination requires disclosure in the financial statements). SAB 99 was developed to provide the SEC Staff’s interpretation of the concept of materiality with respect to one specific context: the determination of whether a misstatement in the financial statements, which has been determined to be quantitatively immaterial, is material to the financial statements.³⁵⁷ Therefore, SAB 99 is often referenced by financial reporting personnel when assessing materiality determinations in that context. However, it does not provide the authoritative framework that is to be applied in all materiality contexts. Instead, one should consider the authoritative literature regarding the concept of materiality to appropriately evaluate the materiality of the Shen 3 well costs to Anadarko’s financial statements. Just as SAB 99 is not included in GAAP, materiality is not defined in GAAP. Notwithstanding its widespread use in accounting determinations, materiality also is a legal concept.³⁵⁸ In *TSC Industries v. Northway, Inc.*, the Supreme Court held that a fact is material if there is “a substantial likelihood that the … fact would have been viewed by the reasonable investor as having significantly altered the ‘total mix’ of information made available.”³⁵⁹

178. Mr. Regan fails to evaluate whether the purported misstatements in Anadarko’s financial statements “would have been viewed by the reasonable investor as having significantly altered

³⁵⁶ SAB 99.

³⁵⁷ SAB 99.

³⁵⁸ ASC 105-10-05-6 notes that the “provisions of the Codification need not be applied to immaterial items,” but does not establish what is “immortal” or “material.”

³⁵⁹ See, *TSC Indus., Inc., v. Northway, Inc.*, 426 U.S. 438 (1976), pp. 449–450 (referring to *Basic, Inc. v. Levinson*, 485 U.S. 224 (1988)) in which the Supreme Court noted that determinations of materiality require “delicate assessments of the inferences a ‘reasonable shareholder’ would draw from a given set of facts and the significance of those inferences to him....” In September 2015, the FASB issued a Proposed Amendment to Statement of Financial Accounting Concepts in which the FASB “include[d] a brief summary of the U.S. Supreme Court’s definition of materiality because that is the definition that [was] currently observed by the Board.” See, FASB Exposure Draft, “Proposed Amendments to Statement of Financial Accounting Concepts,” September 24, 2015, pp. 1–2. In August 2018, the FASB adopted the following definition of materiality: “The omission or misstatement of an item in a financial report is material if, in light of surrounding circumstances, the magnitude of the item is such that it is probable that the judgment of a reasonable person relying upon the report would have been changed or influenced by the inclusion or correction of the item.” See, SFAC No. 8, *Chapter 3, Qualitative Characteristics of Useful Financial Information*, ¶ QC11.

the ‘total mix’ of information.” Because Mr. Regan structured his analysis on non-authoritative guidance contained in SAB 99, and failed to recognize that the Supreme Court defined materiality in a ruling that pre-dated Anadarko’s accounting determinations at issue in this matter, his analysis is fundamentally flawed.³⁶⁰ As a result, his opinion predicated on this analysis (that the Shen 3 well costs were material to Anadarko’s December 31, 2014 financial statements) is unreliable.

B. Mr. Regan Failed to Perform a Sufficient Materiality Analysis

179. Irrespective of the fundamental flaw related to his failure to address authoritative guidance regarding materiality, Mr. Regan’s materiality analysis is further flawed in its application, resulting in an unreliable conclusion regarding the materiality of the Shen 3 well costs to Anadarko’s financial statements as of December 31, 2014.

1. Mr. Regan’s Analysis Fails to Demonstrate the Relevance of the Financial Metrics Evaluated to the Information Needs of Investors

180. In order to perform a competent and diligent analysis, Mr. Regan’s materiality analysis must demonstrate a reliable basis for concluding that the financial metrics being evaluated are relevant to the information needs of investors.³⁶¹ However, Mr. Regan’s analysis fails to include such a basis.

181. Mr. Regan applies this 5% threshold to the following line items from Anadarko’s financial statements: 1) “Income (Loss) Before Income Taxes,” which is included in Anadarko’s Consolidated Statements of Income; 2) “Suspended Exploratory Well Costs,” which is not a line item in any of Anadarko’s financial statements but instead is included in a footnote to the financial statements; and 3) “Dry Hole Expense,” which is not a line item in any of Anadarko’s financial statements, nor included in the footnotes to the financial statements, but instead is

³⁶⁰ Additionally, in a December 2007 speech on assessing materiality, an Associate Chief Accountant in the SEC’s Division of Corporation Finance stated, “...we have to get back to where we should have been all along – the Supreme Court view and its focus on what’s important to the reasonable investor.” See, SEC, “Speech by SEC Staff: Remarks before the 2007 AICPA National Conference on Current SEC and PCAOB Developments by Todd E. Hardiman,” available at <https://www.sec.gov/news/speech/2007/spch121107teh.htm>.

³⁶¹ CIFR Report, p. 95.

presented only within the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” section of Anadarko’s annual (10-K) filing.³⁶²

182. Mr. Regan has not provided any discussion of why these are “relevant disclosed amounts.”³⁶³ For example, Mr. Regan’s analysis includes a comparison to “Dry Hole Expense” despite the fact that this amount is not presented in either Anadarko’s financial statements or the associated footnotes. Nor has Mr. Regan explained why “Income (Loss) Before Income Taxes,” which includes for FY 2014 a \$4.4 billion charge related to “Tronox-related contingent loss,” is relevant.³⁶⁴ The inclusion of this non-operating and non-recurring charge has the effect of lowering Anadarko’s fiscal-year 2014 Income (Loss) Before Income Taxes by almost \$4.4B and, thereby, significantly impacting Mr. Regan’s measure of quantitative materiality as of December 31, 2014 (as well as the qualitative portion of his materiality analysis).³⁶⁵

183. Similarly, Mr. Regan has failed to explain whether other “relevant disclosed amounts” exist. For example, his analysis fails to compare the amount Mr. Regan asserts to be inappropriately capitalized to the following metrics, all of which are disclosed within Anadarko’s financial statements: 1) Revenue (disclosed in the Consolidated Statements of Income); 2) Operating Income (disclosed in the Consolidated Statements of Income); and 3) Dry hole expense and impairments of unproved properties (disclosed in the Consolidated Statements of Cash Flows).

184. The following table illustrates the impact on Mr. Regan’s assessment of quantitative materiality as of December 31, 2014 if Mr. Regan had chosen to evaluate the impact of the alleged inappropriately capitalized amount against Revenue, Operating Income and Dry hole expense and impairments of unproved properties:

³⁶² Regan Report, ¶ 75.

³⁶³ Regan Report, ¶ 75.

³⁶⁴ Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 20, 2015, p. 48.

³⁶⁵ Regan Report, ¶ 78.

Mr. Regan's Analysis	12/31/2014
Suspended Shen 3 Costs	63.6
Income (Loss) Before Income Taxes	117.9%
Suspended Exploratory Well Costs	4.2%
Dry Hole Expense	8.4%
Alternative Metrics	12/31/2014
Suspended Shen 3 Costs	63.6
Revenue	0.3%
Operating Income (Loss)	1.2%
Dry hole expense and impairments of unproved properties	5.1%

185. As this table demonstrates, when reasonable, alternative metrics are used, an accounting professional reasonably can conclude that the omitted fact would have been viewed by the reasonable investor as not having significantly altered the “total mix” of information made available. Therefore, an accounting professional can reasonably conclude that the accounting for Shen 3 suspended well costs were not material as of December 31, 2014.

2. Mr. Regan's Analysis Fails to Consider that Information Regarding the Results of Shen 3 Was Available to Investors

186. Even if one were to overlook that Mr. Regan's analysis failed to demonstrate that the presence or absence of hydrocarbons in an individual appraisal well bore is of material importance to investors, the information cited in the Regan Report makes clear that this information was available to investors as of February 2015.

187. For example, Mr. Regan notes in his report that both ConocoPhillips and Marathon expensed the Shen 3 well costs as of December 31, 2014.³⁶⁶ Within its Form 10-K for fiscal year ended December 31, 2014, ConocoPhillips disclosed that the Shen 3 “appraisal well was spud in 2014 and expensed as a dry hole.”³⁶⁷

3. Mr. Regan's Qualitative Analysis Is Insufficient

188. In order to perform a competent and diligent analysis, as well as to comply with the due care requirements of the AICPA Forensic Standards cited by Mr. Regan, it is necessary that Mr. Regan's opinions be based on analysis that evaluates evidence in a rigorous manner. However,

³⁶⁶ Regan Report, ¶ 41.e.

³⁶⁷ ConocoPhillips, Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 24, 2015, p. 8.

Mr. Regan's opinion that the Shen 3 well costs were material to Anadarko's December 31, 2014 financial statements is not based on a rigorous evaluation of the evidence produced in this matter.

189. For example, as part of his assessment of qualitative indicators of materiality, Mr. Regan asserts that "Shen-3 results and the associated reduction in resource estimates was [sic] further significant considering that management's bonus were [sic] affected by performance goals that included consideration of MMBOE sales and related reserves."³⁶⁸ Mr. Regan offers no analysis to evaluate how the decision to suspend the Shen 3 drilling costs impacted Anadarko management bonuses. He has not provided any analysis that shows that there is any connection at all between dry hole expense and "MMBOE sales and related reserves."³⁶⁹ Instead, he simply asserts that "the failure to appropriately expense Shen-3 as a dry hole expense indicated an increased possibility that the well could be used as a producing well."³⁷⁰

190. The qualitative factor listed in SAB 99 on which Mr. Regan bases his materiality analysis states "whether the **misstatement** has the **effect** of increasing management's compensation – for example, by **satisfying** requirements for the award of bonuses or other forms of incentive compensation."³⁷¹ Mr. Regan has identified no "effect," nor determined that the failure to expense Shen 3 well costs as of December 31, 2014 "satisf[ied]" requirements of Anadarko management compensation arrangements. More fundamentally, he also has not demonstrated that failure to expense Shen 3 well costs was a "misstatement," as I established in Section VII.A.

191. Furthermore, Mr. Regan's analysis of this "qualitative factor" further demonstrates the fundamental flaw in his materiality analysis as described in Section IX.A. Specifically, Mr. Regan acknowledges in the analysis of this qualitative factor that the financial metric relevant to the compensation of Anadarko's executives included "MMBOE sales and related reserves."³⁷² Presumably, these are the metrics that contribute to the determination of the compensation of Anadarko executives and also are metrics that influence decisions that users make on the basis of the financial information of Anadarko.³⁷³ However, Mr. Regan's quantitative assessment of materiality fails to address these metrics.

³⁶⁸ Regan Report, ¶ 86.

³⁶⁹ Regan Report, ¶ 86.

³⁷⁰ Regan Report, ¶ 86.

³⁷¹ SAB 99 (emphasis added).

³⁷² Regan Report, ¶ 86.

³⁷³ SFAC No. 8, *Chapter 3, Qualitative Characteristics of Useful Financial Information*, ¶ QC11.

192. Mr. Regan's qualitative analysis includes discussion of evidence that he purports to be "inconsistent"³⁷⁴ with "disclosures asserting the success of Shen-3."³⁷⁵ However, Mr. Regan's discussion of this "inconsistent" information is misleading. For example, Mr. Regan asserts that Patrick McGrievy (Deepwater GOM General Manager) "testified that based on the preliminary results from Shen-3, there were concerns regarding Shenandoah's size and commerciality."³⁷⁶ First, this statement is misleading because Mr. McGrievy was not testifying regarding concerns on the part of Anadarko management. Instead, he was testifying regarding concerns on the part of a non-operating partner, ConocoPhillips.³⁷⁷ Mr. Regan also fails to address the fact that ConocoPhillips continued to support ongoing appraisal activities for the Shenandoah Project, as evidenced by their agreement to several AFEs that were proposed subsequent to the date of the communications regarding ConocoPhillips' "concerns" (*i.e.*, Shen 4, Shen 5, and Shen 6).³⁷⁸ Therefore, the alleged concern that ConocoPhillips had as of the date of this communication fails to demonstrate that ConocoPhillips, much less Anadarko, considered Shen 3 to be "unsuccessful." Relatedly, it is important to acknowledge that each Partner may have unique interpretations of the results from exploratory-type stratigraphic test wells. Therefore, it is not reasonable to point to "concerns" expressed by one Partner to assert that disclosures made by another Partner are misleading.³⁷⁹

193. Mr. Regan's qualitative analysis also misrepresents evidence produced in this matter. For example, Mr. Regan asserts that "Anadarko's Q4 2014 earnings release and operations report [...] contained positive and incorrect statements regarding Shenandoah, particularly about finding 50% more resources rather than actually finding less."³⁸⁰ This statement is not supported by the document cited by Mr. Regan. Specifically, Anadarko's Q4 2014 Operations Report, cited in footnote 137 to the Regan Report, does not state that Shen 3 found "50% more resources," but rather that Shen 3 "found approximately 50% (1,470 feet) more of the same well-developed **reservoir sands** 1,500 feet down-dip and 2.3 miles east of the Shenandoah-2 well, which encountered more than 1,000 feet of net oil pay in excellent quality, Lower Tertiary-aged

³⁷⁴ Regan Report, ¶ 83.

³⁷⁵ Regan Report, ¶ 79.

³⁷⁶ Regan Report, ¶ 84.

³⁷⁷ Deposition of Patrick McGrievy, August 24, 2022 ("McGrievy Deposition"), pp. 147:9–150:14.

³⁷⁸ APC-00636521–527; APC-00061952–953; APC-00089442–455.

³⁷⁹ See, *e.g.*, APC-00029762; APC-00029952; APC-00173231.

³⁸⁰ Regan Report, ¶ 82.

sands.”³⁸¹ At deposition, Mr. Regan cited this document multiple times when asserting that Anadarko misrepresented the results of the Shen 3 well to KPMG.³⁸² Mr. Regan has not provided a basis for his assertion that a disclosure related to the identified level of “reservoir sands” would be equivalent to a disclosure regarding the identified “resources” of the reservoir.

194. Because Mr. Regan’s materiality analysis fails to evaluate the evidence produced in the matter in a rigorous manner, the opinion based on that analysis (*i.e.*, that the Shen 3 well costs were material to Anadarko’s December 31, 2014 financial statements) is unreliable.

X. Mr. Regan’s Opinion that GAAP Required Anadarko to Impair the Shenandoah Project as of December 31, 2015 Is Flawed and Misleading

195. On May 1, 2017, Anadarko disclosed in its Q1 2017 10-Q that the negative results obtained upon completion of the Shen 6 appraisal well and subsequent sidetrack, as well as developments in the commodity price environment at that time, led to the Company’s decision in April 2017 to discontinue further appraisal activities in the Shenandoah field.³⁸³ The discontinuation of the Shenandoah appraisal program indicated that Anadarko no longer satisfied a GAAP requirement for continued capitalization of Shenandoah Project costs and, accordingly, approximately \$902 million of total impairments were taken in Q1 2017 related to the Shenandoah Project: 1) \$467 million impairment charge related to the unproven property asset (*i.e.*, non-producing leasehold properties or “NPLH”) balance, and 2) \$435 million in previously-suspended exploratory well costs.³⁸⁴

196. Mr. Regan opines that Anadarko should have recorded these impairments as of December 31, 2015.³⁸⁵ However, as described in more detail in Section X.B, he fails to support this opinion with a competent and diligent analysis, which renders his opinion unreliable.

³⁸¹ APC-00349767–783 at 778 (emphasis added).

³⁸² See, *e.g.*, Regan Deposition, pp. 93:19–94:4.

³⁸³ Anadarko Petroleum Corporation, Form 10-Q for the Quarterly Period ended March 31, 2017, filed on May 2, 2017, pp. 12–13.

³⁸⁴ Anadarko Petroleum Corporation, Form 10-Q for the Quarterly Period ended March 31, 2017, filed on May 2, 2017, pp. 12–13; APC-00739080–081.

³⁸⁵ Regan Report, ¶ 89.

A. Anadarko's Decision to Impair Shenandoah Project Costs as of Q1 2017 Was Consistent with GAAP

197. As described above, authoritative guidance relevant to the assessment of the Shenandoah Project for impairment is contained in ASC 932-360-35.³⁸⁶ Based on my review of this guidance, Anadarko's decision to impair the Shenandoah Project as of March 31, 2017 and not as of an earlier period, is consistent with GAAP.

1. ASC 932-360-35-11 Establishes that Unproved Oil and Gas Properties Must be Assessed Periodically for Impairment

198. GAAP provides that long-lived assets be assessed periodically for impairment.³⁸⁷ An impairment loss is recognized only if "the carrying amount of a long-lived asset ... is not recoverable and exceeds its fair value."³⁸⁸ Specific to oil and gas producing properties, ASC 932-360 establishes that the impairment assessment is typically performed on a field-by-field basis or by logical grouping of assets if there is a significant shared infrastructure (*e.g.*, platform).³⁸⁹ In addition, under ASC 932, entities are required to periodically assess properties with no proved reserves (*i.e.*, "unproved properties") to determine whether they have been impaired.³⁹⁰ The Shenandoah Project is an unproved property and therefore subject to periodic impairment testing. Anadarko's internal accounting policy, "Accounting Bulletin 20.2" regarding "Non-Producing Leasehold Investments" ("A.B. 20.2"), reflects this guidance and states that "[a]ll non-producing leasehold investments shall be either periodically assessed for impairment or subjected to systematic impairment recognition on a group basis."³⁹¹

199. If the result of the assessment indicates that the property is impaired, ASC 932-360 requires entities to recognize a loss, calculated as the difference between the carrying amount of the asset and its estimated fair value, in the period in which it occurs.³⁹² This is consistent with Anadarko's disclosures in its public SEC filings:

³⁸⁶ See, Section V.C.3.

³⁸⁷ ASC 360-10-35-15.

³⁸⁸ ASC 360-10-35-17.

³⁸⁹ ASC 932-360-35-8.

³⁹⁰ ASC 932-360-35-11. Unproved properties are defined as "properties with no proved reserves." See, ASC 932-360-20.

³⁹¹ Exhibit 342, APC-00113409–417 at 409.

³⁹² ASC 932-360-35-8.

“Properties and equipment are reviewed for impairment when facts and circumstances indicate that net book values may not be recoverable. In performing this review, an undiscounted cash flow test is performed at the lowest level for which identifiable cash flows are independent of cash flows from other assets. If the sum of the undiscounted future net cash flows is less than the net book value of the property, an impairment loss is recognized for the excess, if any, of the property’s net book value over its estimated fair value.”³⁹³

200. The initial assessment of whether an asset might be impaired requires judgment. ASC 932-360 does not provide examples of impairment indicators; however, Anadarko’s internal accounting policy A.B. 20.2 does identify the following factors that should be considered in assessing whether an impairment may be necessary:

- Company’s intention to drill on the property;
- Industry activity in the immediate area;
- Other wells (dry or successful) drilled in the immediate area;
- Geological evaluation of the immediate area;
- Lease surrender terms and capital requirements; and
- Other factors deemed relevant by management.³⁹⁴

201. A competent and diligent analysis of whether the Shenandoah Project should have been impaired prior to March 31, 2017 appropriately could include an assessment of these factors.

2. ASC 932-360-35-13 Establishes that Exploratory-Type Stratigraphic Test Wells Are Assumed to be Impaired if the Sufficient Progress Criterion is Not Met or if There Exists Substantial Doubt About the Economic or Operational Viability of the Exploration Project

202. In addition to guidance related to the assessment for impairment of the NPLH asset (*i.e.*, the field), ASC 932-360 also contains guidance related to the evaluation of individual exploratory-type stratigraphic test wells for potential impairment. Specifically, ASC 932-360-35-13 states:

“If the sufficient progress criteria (see paragraphs 932-360-35-18 through 35-20) is not met, or if an entity obtains information that raises substantial doubt about

³⁹³ Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2016, filed on February 17, 2017, p. 94.

³⁹⁴ Exhibit 342, APC-00113409–417 at 415.

the economic or operational viability of the project, the exploratory well or exploratory-type stratigraphic well shall be assumed to be impaired and its costs, net of any salvage value, shall be charged to expense.”³⁹⁵

203. This guidance establishes that previously-suspended well costs must immediately be expensed when the Sufficient Progress criterion is no longer satisfied, regardless of whether there is substantial doubt about the economic or operational viability of the project. Therefore, the decision to expense previously suspended exploratory well costs does not establish that there is substantial doubt regarding the economic viability of the field.

3. The Decision to Impair the Unproved Property Balance Related to the Shenandoah Project and Expense the Previously-Suspended Well Costs Associated with the Shenandoah Project in Q1 2017 Was Consistent with ASC 932-360

204. My review of the evidence produced in this matter indicates that Anadarko management’s assessment that there were no indications of impairment of the unproved property prior to Q1 2017 was reasonable as the estimated recoverable resources for the Shenandoah field were sufficient to support the NPLH asset values assigned to the Shenandoah Project prior to the results of Shen 6 that became available in March 2017.³⁹⁶ In addition, it is clear that Anadarko continued to make sufficient progress towards sanctioning the Shenandoah Project through March 2017, including continued appraisal activities and allocation of resources to the project, which justified the continued suspension of Shenandoah well costs through December 31, 2016.

a) The Sufficient Progress Criterion Was Satisfied Through December 31, 2016

205. As described above, ASC 932-360-35-13 establishes that exploratory-type stratigraphic wells are assumed to be impaired (*i.e.*, the previously-suspended well costs must immediately be expensed) when the Sufficient Progress criterion is no longer satisfied *or* when substantial doubt exists about the economic or operational viability of the project.³⁹⁷ My review of the documents

³⁹⁵ ASC 932-360-35-13.

³⁹⁶ KPMG_APc_eA_0008001–005 at 002; APC-00307132–137 at 134.

³⁹⁷ ASC 932-360-35-13.

produced in this matter indicate that the Sufficient Progress criterion was satisfied through December 31, 2016.

206. For example, Anadarko continued drilling in the Shenandoah field and continued the appraisal program as planned, with the spud of the fifth Shenandoah appraisal well (*i.e.*, Shen 6) on December 15, 2016.³⁹⁸ The objective of Shen 6 was to test “potential oil-water contacts and down-dip limits of the hydrocarbon column of the Upper and Lower Wilcox within the central-to-eastern flank of the Shenandoah structure” to assess the resource range.³⁹⁹ The drilling of the Shen 6 appraisal well was completed on February 8, 2017, but subsequent results suggested the presence of faulting between the Shen 6 and Shen 5 appraisal wells, which had negative implications on the amount of estimated recoverable resources for the field.⁴⁰⁰ Anadarko then drilled a sidetrack from Shen 6 to confirm oil/water contacts within this fault block to “provide additional resource size clarity and constrain the number of conceptual development options currently contemplated by the Shenandoah project team.”⁴⁰¹ In March 2017, Anadarko drilled a bypass to the sidetrack to “enable the well to be safely drilled to the previously proposed [total depth] and to effectively evaluate the Upper and Lower Tertiary sections.”⁴⁰²

207. In addition, contemporaneous notes from the quarterly meeting between members of Anadarko’s Property Accounting and Exploration Planning groups also indicate that Anadarko was making sufficient progress with respect to the Shenandoah Project. Specifically, notes from the meeting on December 20, 2016 (“Q4 2016 Impairment Meeting”) state:

“No changes to suspended wells. Additional appraisal drilling is needed before the project is sanctioned, and Shenandoah-6 has just started drilling in December. The well is designed as a test well and expected to have a sidetrack within 180-day clock that will be drilled to serve as a future producer. The well is expected to be plugged after coring. Property Accounting discussed treatment of

³⁹⁸ APC-00719562–563 at 563.

³⁹⁹ APC-00739080–081 at 081; APC-00307132–137 at 134.

⁴⁰⁰ APC-01376854–857 at 854–855. Property Accounting determined the Shen 6 well costs should be accounted for as a dry hole expense. See, APC-00304205.

⁴⁰¹ APC-01376854–857 at 854. The results of Shen 6 are further documented in a presentation titled, “Shenandoah #6: Recommendation to Sidetrack down-dip into Shen 5 FB.” See, APC-01271207. See also, APC-00089442–455 at 443.

⁴⁰² APC-00090153–154 at 153.

exploration well costs and the portion of the well below the sidetrack (future dry hole expense) is not expected to be reached by December 31.”⁴⁰³

208. Contemporaneous documents further indicate that the disappointing results of Shen 6 (including the results of the sidetrack and subsequent bypass to the sidetrack) in March 2017, in conjunction with developments in the commodity price environment at that time, led to Anadarko’s decision in early April 2017 to no longer continue the Shenandoah appraisal program.⁴⁰⁴ Anadarko’s decision to discontinue the appraisal program suggested that it no longer intended to drill on the leased property, at which point it no longer satisfied the Sufficient Progress criterion.

209. As a result, it was reasonable and consistent with GAAP for suspended well costs associated with the Shenandoah Project to continue to be carried as assets through December 31, 2016 as long there was not substantial doubt regarding the economic or operational viability of the project at this time.

b) Evidence Demonstrates There Was Not Substantial Doubt Regarding the Economic or Operational Viability of the Shenandoah Project Prior to Q1 2017

210. While GAAP does not specifically define the term “substantial doubt” in this context, GAAP does define “substantial doubt” in the context of an entity’s ability to continue as a going concern.⁴⁰⁵ Specifically, “substantial doubt” about an entity’s ability to continue as a going concern exists “when conditions and events, considered in the aggregate, indicate that it is probable that the entity will be unable to meet its obligations as they become due within one year after the date that the financial statements are issued....”⁴⁰⁶ GAAP states that the term “probable” is used “consistently with its use in Topic 450 on contingencies.”⁴⁰⁷ That is, ASC 450 requires a loss contingency to be recorded only if it is both probable and can be reasonably

⁴⁰³ APC-00294937-944 at 937–938.

⁴⁰⁴ APC-00739080-081 at 081; Exhibit 492, KPMG_APc_eA_0009897-920 at 911; Anadarko Petroleum Corporation, Form 10-Q for the Quarterly Period ended March 31, 2017, filed on May 2, 2017, p. 12; APC-01281886.

⁴⁰⁵ FASB, Master Glossary, “Substantial Doubt about an Entity’s Ability to Continue as a Going Concern.”

⁴⁰⁶ FASB, Master Glossary, “Substantial Doubt about an Entity’s Ability to Continue as a Going Concern.”

⁴⁰⁷ FASB, Master Glossary, “Substantial Doubt about an Entity’s Ability to Continue as a Going Concern.”

estimated.⁴⁰⁸ ASC 450 acknowledges that the likelihood that a future event or events will result in a loss can range from *remote* to *probable*, and identifies three areas within that range.⁴⁰⁹ Each has a specific meaning within GAAP. “Probable” is defined as “likely to occur” and establishes a threshold that is generally considered to denote a high likelihood of occurrence (*i.e.*, 70% or more).⁴¹⁰ Publications by the “Big 4” accounting firms and academic research indicate that, in practice, “probable” often is interpreted as having at least a 70% to 75% chance of occurrence.⁴¹¹

211. Therefore, an evaluation of whether substantial doubt existed about the economic or operational viability of the Shenandoah Project prior to the quarter ended March 31, 2017 should involve a thorough assessment of the information that was contemporaneously available to Anadarko’s management regarding the economic and operational viability of the Shenandoah Project at that time, including whether any information existed that rose to the level of creating “substantial doubt” about the commercial viability of the project.

212. Evidence I have reviewed demonstrates that Anadarko management did not conclude there was substantial doubt regarding the Shenandoah Project until the results of the Shen 6 well and related sidetrack and subsequent bypass to the sidetrack were available in March 2017.⁴¹² For example, in a July 25, 2016 presentation about Shenandoah Project updates to Anadarko’s Executive Committee, the sanctioning of the Shenandoah field was still targeted for Q3 2017 and

⁴⁰⁸ ASC 450-20-25-2 (“An estimated loss from a loss contingency shall be accrued by a charge to income if both of the following conditions are met: a. Information available before the financial statements are issued or are available to be issued (as discussed in Section 855-10-25) indicates that it is probable that an asset had been impaired or a liability had been incurred at the date of the financial statements. Date of the financial statements means the end of the most recent accounting period for which financial statements are being presented. It is implicit in this condition that it must be probable that one or more future events will occur confirming the fact of the loss; b. The amount of loss can be reasonably estimated.”).

⁴⁰⁹ ASC 450-20-25-1. ASC 450 uses the terms *probable*, *reasonably possible*, and *remote* to identify the three areas within that range, with *probable* being the highest threshold within the range.

⁴¹⁰ ASC 450-20-20; Deloitte, “A Roadmap to Accounting for Contingencies and Loss Recoveries,” 2022, pp. 21, 143; Joseph Aharony and Amihud Dotan, “A Comparative Analysis of Auditor, Manager and Financial Analyst Interpretations of SFAS 5 Disclosure Guidelines,” *Journal of Business Finance and Accounting* 31, nos. 3–4 (2004), pp. 475–504, p. 487, Table 3.

⁴¹¹ Deloitte, “A Roadmap to Accounting for Contingencies and Loss Recoveries,” 2022, pp. 21, 143; Joseph Aharony and Amihud Dotan, “A Comparative Analysis of Auditor, Manager and Financial Analyst Interpretations of SFAS 5 Disclosure Guidelines,” *Journal of Business Finance and Accounting* 31, nos. 3–4 (2004), pp. 475–504, p. 487, Table 3. In this paper, “managers” include CFOs, controllers and other “top financial reporting managers.” See also, Harrison, Kenneth and Lawrence Tomassini, “Judging the Probability of a Contingent Loss: An Empirical Study,” *Contemporary Accounting Research*, Vol. 5 (2), Spring 1989, pp. 642–648.

⁴¹² I note that while drilling at the Shen 6 appraisal well reached total depth in February 2017, the complete results of Shen 6 were not available until all operations at Shen 6 (including the Shen 6 sidetrack and subsequent bypass to the sidetrack) were completed in late March 2017. See, APC-00091554–563 at 554, 560. I address the evidence cited in Mr. Regan’s analysis to support his conclusion that there was substantial doubt as of December 31, 2015 in Section X.B.

initiation of extraction of oil was projected for July 2021.⁴¹³ The presentation also highlighted the importance of the Shen 6 appraisal well, noting that the Shen 6 sidetrack was “essential to allow time to execute JOA activities leading up to 2018 FID and SOP Issuance.”⁴¹⁴ Similarly, in an August 2016 presentation to Anadarko’s Board of Directors, an update on the Shenandoah Project was provided, which noted that while “current development economics” were challenged, the results of Shen 5 would “improve economics” and the appraisal program was progressing.⁴¹⁵ A later presentation to the Executive Committee on September 14, 2016 indicated that “FDP preparation and approvals moved out due to Shen 5 timing” which delayed the target date for sanctioning the Shenandoah field from 2017 to early 2018, with the target for initiation of oil extraction moved to Q4 2021.⁴¹⁶ In addition, this presentation indicated that Anadarko had proposed a budget for the Shenandoah Project from 2016 through 2018, with projected allocation of resources to the Shenandoah Project subsequent to December 31, 2017.⁴¹⁷

213. In addition to this contemporaneous documentation, former employees and officers of Anadarko provided testimony establishing that Anadarko did not have substantial doubt regarding the viability of the Shenandoah Project prior to completing its assessment of the Shen 6 results (including the sidetrack and bypass results) in March 2017. For example, Mr. Kleckner testified that, during his tenure at the Company, Anadarko had not determined at any point that Shenandoah was not going to be commercially viable, nor did it pursue any exit strategies.⁴¹⁸ Specifically, Mr. Kleckner testified that at the time of his departure in August 2016, Anadarko was still moving forward with the Shenandoah appraisal program and “[t]he company never reached any conclusion that Shenandoah was not economically viable.”⁴¹⁹ Mr. McGrievy also testified that as of February 2016, immediately prior to the spud of Shen 5, “we viewed this field [Shenandoah] as definitely very viable commercial[ly] going forward.”⁴²⁰ Mr. McGrievy’s testimony also is consistent with an e-mail in July 2016 from David Bennett (Financial Advisor)

⁴¹³ APC-00704026.

⁴¹⁴ APC-00704026.

⁴¹⁵ APC-00784657-769 at 761.

⁴¹⁶ APC-01228541.

⁴¹⁷ APC-01228541.

⁴¹⁸ Kleckner Deposition, p. 162:3–19.

⁴¹⁹ Kleckner Deposition, p. 165:3–14.

⁴²⁰ McGrievy Deposition, pp. 284:23–285:16; Exhibit 271, APC-00069320–321.

stating that “Pat McGrievy estimates the probability of sanctioning at 85%.”⁴²¹ Ms. Frye testified that the ultimate decision about whether to sanction the Shenandoah Project would depend on the success of the Shen 5 and Shen 6 appraisal wells, and that if they were successful, the sanctioning decision would likely have occurred in early 2018.⁴²² As described above, Shen 5 encountered over 1,000 feet of net oil pay that would improve the economics of the Shenandoah Project.⁴²³

214. Therefore, while contemporaneous documents that I have reviewed indicate that there were challenges that existed with respect to the Shenandoah Project prior to Q1 2017, those challenges appear to be consistent with the operational challenges that I understand to exist generally with deepwater exploration projects during the appraisal phase. I have not seen evidence indicating that those challenges rose to the level of “substantial doubt” about the economic or operational viability of the Shenandoah Project prior to Q1 2017. As described above, contemporaneous documents indicate that the complete results of Shen 6 in March 2017 and the corresponding decrease in the estimated resources led to substantial doubt about the economic viability of the project. I note that despite this determination, Anadarko continued to evaluate the next steps for the Shenandoah Project even after it impaired the project.⁴²⁴ Specifically, Anadarko acknowledged that its decision to impair the Shenandoah Project was purely an accounting decision “bounded by prescriptive accounting methodology” that did “not reflect [its] position in defining a path forward action to commercialize Shenandoah.”⁴²⁵

215. As a result, it was reasonable and consistent with GAAP for suspended well costs associated with the Shenandoah Project to continue to be carried as assets through December 31, 2016.

⁴²¹ In 2016, Anadarko elected to exercise a portion of its preferred right for Marathon’s working interest in Shenandoah. A portion of the consideration was contingent on Anadarko sanctioning the Shenandoah development. This consideration was required to be recorded as a contingent liability, and the amount was estimated based on the “likelihood of sanctioning.” Property Accounting appears to have confirmed with Mr. McGrievy in or around July 2016 regarding the probability of sanctioning the Shenandoah development. See, APC-00265282–286 at 283–285.

⁴²² Frye Deposition, pp. 290:22–292:18.

⁴²³ APC-00002563–813 at 579; APC-00784657–769 at 761.

⁴²⁴ See, e.g., APC-01167170; APC-00308160; APC-00362397–399; APC-00325494–497.

⁴²⁵ APC-00737596–597 at 596. In a presentation dated April 4, 2017 regarding the path forward for the Shenandoah Project, three different strategies were presented: 1) maintain the status quo and progress forward and maintain earliest oil production in 2021; 2) reduce pace and preserve optionality ; and 3) exit basin by relinquishing lease or monetize. The recommended path forward was to reduce pace and spending while preserving basin optionality, which involved realigning the partnership to more committed GOM players and evaluating other commercial solutions. See, APC-00091671.

c) The Impairment of the Shenandoah Project in Q1 2017 Was Reasonable Given the Negative Shen 6 Results in March 2017

216. As described above, in addition to expensing \$435 million in previously-suspended exploratory well costs related to the Shenandoah Project, Anadarko also recognized a \$467 million impairment charge related to the unproved property asset balance for the Shenandoah Project in Q1 2017.⁴²⁶ Contemporaneous documents indicate that Anadarko management's assessment that impairment was necessary in Q1 2017 was based primarily on the results of Shen 6 and the commodity price environment at that time, leading to an estimated fair value associated with the unproved property asset that was less than its carrying cost.

217. For example, in an e-mail sent on April 6, 2017, Chris Champion (Chief Accounting Officer) indicated to Mr. Leyendecker and Danny Brown (Senior Vice President of International and Deepwater Operations) that "our respective teams have been working closely together to determine the impact of the results of the Shen 6 well on the NPLH and Suspended Well balances" and that in Q1 2017, a "significant portion of the NPLH balances that were allocated to the Shen Project from the Kerr purchase accounting" was going to be written off.⁴²⁷ Specifically, Mr. Champion explained that "[t]he NPLH is being written down as a result of the negative resource estimate revision post-Shen 6."⁴²⁸ In addition, on April 9, 2017, Mr. Bennett asked Jennifer Roberts (a Manager in the Property Accounting group) whether the Shenandoah Project write down was due to "not having enough reserves to support the remaining Kerr McGee purchase price allocation."⁴²⁹ In response, Ms. Roberts confirmed that the "NPLH impairment [was] due to recoverability of resources necessary to transfer book value from KMOG [sic] purchase price allocation."⁴³⁰

218. As a result, in my opinion, Anadarko's decision to write down \$467 million of unproved property balance in Q1 2017 was reasonable, timely, and consistent with the GAAP requirements prescribed by ASC 932-360.

⁴²⁶ Anadarko Petroleum Corporation, Form 10-Q for the Quarterly Period ended March 31, 2017, filed on May 2, 2017, pp. 12–13; APC-00739080–081.

⁴²⁷ APC-00091782.

⁴²⁸ APC-00091782.

⁴²⁹ APC-00309632–633 at 632.

⁴³⁰ APC-00309632–633 at 632.

B. Mr. Regan's Analysis Is Flawed and Unreliable

219. Mr. Regan opines that Anadarko should have recognized an impairment “when ‘substantial doubt’ about the [Shenandoah] project’s economic viability existed (*i.e.*, by December 31, 2015).”⁴³¹ However, the Regan Report fails to provide a critical and reasoned analysis in support of this conclusion. Instead, Mr. Regan’s analysis inappropriately incorporates data that was not available at the time the at-issue accounting determinations were made and ignores determinations reached by other accounting professionals. Mr. Regan effectively assumes his conclusion without doing analysis. His opinion that the Shenandoah Project should have been impaired as of December 31, 2015 is predicated primarily on an assumption that is inconsistent with evidence related to the status of the Shenandoah appraisal program throughout the Class Period.

1. Mr. Regan’s Analysis Is Biased by Hindsight

220. In order to perform a competent and diligent analysis, Mr. Regan’s analysis must incorporate “relevant data”⁴³² that was reasonably available to Anadarko when it reached its accounting determinations related to the impairment of the Shenandoah Project.⁴³³ Mr. Regan asserts that the Shenandoah Project should have been impaired as of December 31, 2015; his analysis in support of this opinion should be based solely on information that was reasonably available to Anadarko as of the filing of Anadarko’s financial statements for the year ended December 31, 2015.

221. Mr. Regan failed to perform a competent and diligent analysis because his analysis incorporates data that was not reasonably available to Anadarko at the time of the filing of its financial statements for the year ended December 31, 2015. For example, Mr. Regan asserts that his conclusion that Anadarko was required to impair the Shenandoah Project as of December 31, 2015 is “consistent with the Company’s actual write off of all related Shenandoah basin project costs [...] during the quarter ended March 31, 2017.”⁴³⁴ Mr. Regan fails to establish the

⁴³¹ Regan Report, ¶ 89.

⁴³² AICPA, “Statement on Standards for Forensic Services,” ¶ 6.

⁴³³ CIFR Report, p. 95.

⁴³⁴ Regan Report, ¶¶ 89, 98.

relevance of Anadarko’s ultimate decision to impair the Shenandoah Project in 2017 to its earlier accounting determinations.

222. Mr. Regan repeatedly refers to Anadarko’s decision to impair the Shenandoah Project in 2017 as support for his conclusion. For example, he cites it to support his assertion that “it is therefore unlikely that any additional exploratory efforts and costs undertaken by Anadarko would cause the Shenandoah basin project to become economically viable.”⁴³⁵ He also refers to KPMG’s evaluation of Anadarko’s subsequent decision to write-off costs related to the Shenandoah project to support his conclusion.⁴³⁶ These observations regarding an accounting determination made in Q1 2017 have no bearing on the accounting judgments reached by Anadarko as of December 31, 2015, and completely disregard the factors that affected the Shenandoah Project between those two points in time (*e.g.*, changes in the commodity pricing environment, and the results of the second Shen 4 sidetrack, the Shen 5 well, and the Shen 6 well).⁴³⁷

223. Because Mr. Regan’s analysis is inappropriately predicated on hindsight (*i.e.*, information that was not reasonably available to Anadarko when it reached its own accounting determinations), it is flawed. Therefore, the conclusions he reaches based on this analysis are unreliable.

2. Mr. Regan’s Analysis Disregards Relevant Information

224. In order to perform a competent and diligent analysis, Mr. Regan’s analysis should evaluate all relevant data. Therefore, in order to opine as to whether “substantial doubt” regarding the economic viability of the Shenandoah Project existed as of December 31, 2015, Mr. Regan’s analysis should address the status of the Shenandoah Appraisal program as of December 31, 2015. Because he fails to perform this analysis, Mr. Regan’s analysis is incomplete and his related conclusions are unreliable.

225. As demonstrated in Section X.A.3, evidence I have reviewed demonstrates that Anadarko had a reasonable basis to conclude that there was not substantial doubt regarding the economic viability of the Shenandoah Project as of December 31, 2015. As of the filing of Anadarko’s

⁴³⁵ Regan Report, ¶ 97.

⁴³⁶ Regan Report, ¶ 99.

⁴³⁷ See, Section III.C.

December 31, 2015 financial statements, drilling of Shen 4 (including a sidetrack) was complete in September 2015 and, based on the results of this appraisal well, plans were in place for an additional appraisal well (Shen 5) which was to be drilled with the intention of serving as a production well (*i.e.*, a “keeper” well).⁴³⁸ Mr. Regan has not provided an explanation for why Anadarko (and its Partners) would continue to invest significant amounts of capital into the Shenandoah Project if, as he asserts, substantial doubt as to the economic viability of the Project existed as of December 31, 2015.

3. Mr. Regan’s Analysis Is Insufficient

226. In support of his conclusion that Anadarko should have impaired the Shenandoah Project as of December 31, 2015, Mr. Regan cites three pieces of evidence that he purports to be “consistent with” Condition 3 (*i.e.*, that “there was substantial doubt that the Shenandoah basin project (as a whole) would be economically viable” as of December 31, 2015).⁴³⁹ However, the Regan Report fails to present a thorough analysis of this evidence, which renders the related conclusions unreliable.

227. First, the Regan Report cites an internal Anadarko e-mail from October 2014 that Mr. Regan quotes: “Conoco had basically cut its estimated oil volumes in half following additional interpretations of the Shenandoah basin.”⁴⁴⁰ However, the Regan Report fails to provide appropriate context for this communication. First, this e-mail contains an interpretation of one of the Partners to the Shenandoah Project of the early results of the Shen 3 well, before it was even complete.⁴⁴¹ The e-mail communication does not provide any insight into the view of Anadarko management regarding the results of the Shen 3 well. Again, Partners may reach different conclusions, based on their own evaluations of the well results and their own professional judgments, which could result in differing accounting determinations. Furthermore, this correspondence relates to a reporting period different from the reporting period in which Mr. Regan concludes Anadarko should have recognized an impairment of the Shenandoah Project. Specifically, the communication cited in the Regan Report is dated October 2014, more than a

⁴³⁸ APC-00653389.

⁴³⁹ Regan Report, ¶ 2.

⁴⁴⁰ Regan Report, ¶ 101.

⁴⁴¹ Exhibit 259, APC-00013459–460 at 459.

year prior to the period at which Mr. Regan asserts Anadarko should have recorded an impairment.⁴⁴² Therefore, this communication is of questionable relevance to an evaluation of Anadarko's financial reporting determination as of December 31, 2015. Lastly, the Regan Report has not reconciled its presentation of this communication with the reaction of ConocoPhillips to the impairment recognized by Anadarko in Q1 2017. Specifically, contemporaneous e-mail communications demonstrate that Anadarko financial reporting personnel received "tremendous pushback from partners" regarding the disclosures Anadarko was preparing related to the impairment of the Shenandoah Project in Q1 2017.⁴⁴³ A representative from ConocoPhillips stated that ConocoPhillips was "extremely disappointed with the means by which Anadarko chose to notify the partnership" of Anadarko's decision to impair the Shenandoah Project in Q1 2017 and that ConocoPhillips "currently feel[s] it conveys a message which could easily be misinterpreted with regards to the status of the project and ongoing funding of some elements of the program."⁴⁴⁴ This communication occurred nearly two and a half years after the communication cited in the Regan Report as evidence of impairment and nearly 16 months after Mr. Regan claims Anadarko should have impaired the Shenandoah Project. In its 10-K for the fiscal year ended December 31, 2017, ConocoPhillips disclosed that it impaired its share of the Shenandoah Project in 2017 "[f]ollowing the suspension of appraisal activity by the operator" in 2017.⁴⁴⁵

228. The Regan Report also cites various internal Anadarko analyses reporting a "PIR10 measure" that Mr. Regan purports to demonstrate that there existed substantial doubt regarding the economic viability of the Shenandoah Project. However, Mr. Regan's analysis of these documents is deficient and misleading. For example,

- Despite Mr. Regan's assertion that a PIR10 value of 0.30 was a "general guideline and hurdle utilized for consideration of whether to transition an exploratory project like Shenandoah to commercial development,"⁴⁴⁶ he fails to identify any Anadarko policy documentation that establishes this "hurdle." Furthermore, Mr. Regan has provided no basis to conclude that a PIR10 value of less than 0.30 would support a conclusion that

⁴⁴² Exhibit 259, APC-00013459–460 at 459.

⁴⁴³ APC-00736688–689 at 688.

⁴⁴⁴ APC-00736694–695 at 695.

⁴⁴⁵ ConocoPhillips, Form 10-K for the Fiscal Year ended December 31, 2017, filed on February 20, 2018, p. 6.

⁴⁴⁶ Regan Report, ¶ 101.

there was “substantial doubt” as that term exists in the relevant authoritative accounting literature.

- Mr. Regan also fails to provide appropriate context in his discussion of the PIR10 analyses, including how they were utilized within Anadarko. PIR10 analyses included various assumptions regarding factors that could ultimately impact the profitability of a project, including oil prices.⁴⁴⁷ It was used by Anadarko personnel to evaluate the various elements of risk associated with a specific project at a specific period of time, and to model the impact of different inputs, such as the cost of development and price of oil.⁴⁴⁸ I have seen no evidence establishing that these analyses were used by Anadarko to arrive at a decision whether to continue its Shenandoah appraisal program or to ultimately sanction the Shenandoah field.
- Lastly, Mr. Regan’s discussion of the evidence he cites is incomplete. Specifically, Mr. Regan includes a table that he purports to show “a ‘risked PIR of .22,’ well below the .30 threshold above at \$60 per barrel.”⁴⁴⁹ However, Mr. Regan only presents a portion of this table. Specifically, he removed from this table a column that reported the “P_c” value for each scenario. According to testimony from Ms. Frye, this value reported the “probability of commerciality.”⁴⁵⁰ Within the portion of the table not included by Mr. Regan, it is reported that each “risked mean” scenario has an 88.2% “probability of commerciality.”⁴⁵¹ Mr. Regan has not reconciled his opinion that the economic viability of the Shenandoah Project was “not probable” with Anadarko’s assessment that the “probability of commerciality” of the Shenandoah Project was 88.2% as of the date of this presentation (in or around January 2016).⁴⁵² This 88.2% probability of commerciality also exceeds Mr. Regan’s interpretation of the “probable” threshold, which he testified he interpreted as 70%.⁴⁵³ When asked at deposition whether he considered, for purposes of his analysis, the “probability of commerciality” measures included in Anadarko’s

⁴⁴⁷ Kleckner Deposition, p. 153:4–25.

⁴⁴⁸ Kleckner Deposition, p. 153:4–25.

⁴⁴⁹ Regan Report, ¶ 101.

⁴⁵⁰ Frye Deposition, pp. 212:11–213:1.

⁴⁵¹ Exhibit 269, APC-00060382–383 at 383.

⁴⁵² Exhibit 269, APC-00060382–383 at 383.

⁴⁵³ Regan Deposition, p. 137:7–18.

analyses, Mr. Regan testified the he “couldn’t use it because [he didn’t] know what it means.”⁴⁵⁴

229. In addition, Mr. Regan also cites an internal Anadarko e-mail communication that he asserts provides evidence that an impairment of the Shenandoah Project was “imminent” by December 2016.⁴⁵⁵ Specifically, Mr. Regan cites a March 31, 2017 e-mail from Mr. McGrievy regarding an update to the “Q1, 2017 NBV for Shenandoah” in which he states, “I understand, talking with Luis, that Chris Champion did set the stage with some of the executive team in December, 2016 to let them know that a fairly substantial write-down at Shenandoah would be imminent in 2017.”⁴⁵⁶ The Regan Report provides no additional analysis of this communication, and fails to address multiple elements of the communication that do not support Mr. Regan’s conclusion. For example,

- This communication is from March 2017 and relates to an event that purportedly occurred in December 2016, almost a year after Mr. Regan opines that Anadarko should have impaired the Shenandoah Project. The Regan Report fails to establish the relevancy of this communication to the financial reporting determinations made by Anadarko as of December 31, 2015.
- The e-mail is a second- or third-hand account of an event that may or may not have occurred. Mr. Regan fails to acknowledge that evidence produced in this matter has not corroborated whether Mr. Champion actually met with or discussed any potential impairment for Shenandoah assets with members of the executive team in December 2016.⁴⁵⁷
- Mr. Regan does not address the fact that this purported event is alleged to have taken place prior to the availability of the complete Shen 6 results, which were not available until March 2017. As described above, an impairment of unproved property or NPLH assets exists when the carrying amount of the asset exceeds its fair value. The fair value of the Shenandoah Project is in large part driven by the estimated resources of the field, which did not decrease significantly until the complete results of Shen 6

⁴⁵⁴ Regan Deposition, pp. 151:20–155:10.

⁴⁵⁵ Regan Report, ¶ 101.

⁴⁵⁶ Exhibit 274, APC-00307805–807 at 805.

⁴⁵⁷ McGrievy Deposition, pp. 268:13–272:2.

were available in March 2017. Therefore, Mr. Regan fails to demonstrate how this e-mail indicates that the carrying amount of the Shenandoah NPLH exceeded its fair value in December 2016 (much less as of December 31, 2015).

230. Lastly, at deposition, Mr. Regan asserted that there existed “calculations which indicate there’s an impairment on the entirety of the Shenandoah project” as of “March of 2015.”⁴⁵⁸ Specifically, Mr. Regan referred to a memorandum from the Anadarko Exploration and Development teams dated April 24, 2017, that recommended discontinuing appraisal activities at Shenandoah. The memorandum includes a statement that Anadarko’s purchase of Marathon’s working interest in the Shenandoah Project “provided a 2015 benchmark value of \$46MM for Anadarko’s 33% W[orking] I[nterest].”⁴⁵⁹ However, Mr. Regan failed to perform any substantive analysis of this document. He has not addressed the fact that Anadarko’s purchase of Marathon’s working interest in the Shenandoah Project did not occur in 2015, but rather in April 2016.⁴⁶⁰ Therefore, it is not clear what basis Mr. Regan has to conclude that this transaction establishes substantial doubt regarding the economic viability of the Shenandoah project as of December 31, 2015. More fundamentally, Mr. Regan has not performed any analysis of this document to support his assertion that the Shenandoah Project was impaired in its entirety. For example, he has not demonstrated the extent to which the transaction between Anadarko and Marathon was executed on an arms-length basis and, therefore, provides an estimate of fair market value. Indeed, there is evidence that this transaction was effected under compulsion, and therefore not indicative of fair value.⁴⁶¹ Mr. Regan has also not addressed the fact that Anadarko’s acquisition of Marathon’s working interest was executed through its preferential rights set forth in the Partners’ Joint Operating Agreements, and involved simultaneous transactions with another Partner (Venari).⁴⁶² He also has not addressed the fact that the transaction resulted in Anadarko *increasing* its investment and working interest in the Shenandoah project, suggesting that the Company still anticipated that the Shenandoah Project was economically viable in April 2016 (which was corroborated by contemporaneous documents

⁴⁵⁸ Regan Deposition, pp. 131:8–132:6.

⁴⁵⁹ APC-01283759–768 at 761; Regan Deposition, pp. 134:19–135:11.

⁴⁶⁰ Offshore Engineer, “Marathon sells Shenandoah stake,” available at <https://www.oedigital.com/news/449676-marathon-sells-shenandoah-stake>.

⁴⁶¹ APC-00229007.

⁴⁶² APC-00265282–286; APC-00245433.

and testimony of former employees and officers of Anadarko, as described in Section X.A.3). Instead of performing a competent and diligent analysis, Mr. Regan has instead repeatedly cited an amount from a memorandum as support for his assertion.⁴⁶³

231. Because the Mr. Regan fails to evaluate evidence in a thorough manner, the conclusion reached by Mr. Regan based on this evidence (*i.e.*, that they are “consistent” with his assumption that there was substantial doubt regarding the economic viability of the Shenandoah Project) is unreliable.

4. Mr. Regan’s Analysis Fails to Address the Contemporaneous Conclusions of Other Accounting Professionals

232. In addition to failing to reconcile his opinion with the available evidence regarding the status of the Shenandoah Appraisal Program as of December 31, 2015, Mr. Regan also fails to address the contemporaneous conclusions reached by other accounting professionals as of December 31, 2015 (as well as the conclusions reached through the date on which Anadarko ultimately impaired the Shenandoah Project). Because he failed to address this evidence, Mr. Regan failed to support his opinion with critical and reasoned analysis, rendering his opinion unreliable.

233. As mentioned previously, throughout the Class Period, KPMG evaluated numerous accounting decisions made by Anadarko with respect to the Shenandoah Project. KPMG concluded that Anadarko’s accounting treatment was consistent with GAAP, including multiple evaluations of whether indicators existed that the Shenandoah Project was impaired. For example,

- As part of its audit of Anadarko’s financial statements for the fiscal year ended December 31, 2015, KPMG tested “the completeness and accuracy of [Anadarko’s] significant offshore lease list and evaluate[d] the leases for NPLH impairment purposes as of 12/31/2015.”⁴⁶⁴ As part of this testing, KPMG noted that it had tested the suspended well cost balance associated with the Shenandoah Project. In a memorandum documenting this review, KPMG noted that Anadarko’s plans for future development of the Shenandoah field (*e.g.*, the planned drilling of Shen 5) were “indicative of sufficient

⁴⁶³ Regan Deposition, pp. 129:24–130:18, 131:8–132:6, 133:22–134:18, 142:23–143:18.

⁴⁶⁴ KPMG_APc_eA_0006135.

progress per FASB 932-360-35, and firm plans exist[ed] with established timetables for continued exploratory/appraisal drilling.”⁴⁶⁵ KPMG also noted that Anadarko “continue[d] to incur costs in the area which [was] further indicative of progress.”⁴⁶⁶

- In connection with its review of the expensed Shen 3 well costs in Q3 2016, KPMG evaluated whether the expensing of these costs had any implications for the potential impairment of the Shenandoah Project more broadly. As part of its review procedures, KPMG documented the following: “KPMG inquired of David Janise, General Manager Offshore, who noted that the results of the Shenandoah-3 well does not mean the rest of the overall area is unsuccessful. Rather, the well served to support the Company’s development plan of the area. Said another way, given that there is currently drilling in the area and the success of the other Shenandoah wells, KPMG does not consider it unreasonable that the remaining Shenandoah wells were not expensed as dry holes.”⁴⁶⁷
- In connection with its Q1 2017 review procedures, KPMG performed a review, in accordance with the guidance set forth in ASC 932-360-35-11, of the Non-Producing Leasehold Impairments recorded by Anadarko.⁴⁶⁸ In a memorandum documenting KPMG’s review, KPMG noted that the determination to impair the Shenandoah project in Q1 2017 was based on the “results from the most recent well drilled, the Shenandoah-6 well, [which] reached nonproductive reserves” and, based on these results, “the Company and its partners lacked the management commitment to continue the exploration in the overall Shenandoah area.”⁴⁶⁹ As part of its review procedures related to the impairment, KPMG performed an assessment to determine whether the impairment should have been recorded earlier. Based on this assessment, KPMG concluded “that the timing of the NPLH impairment for GOM Exploration and Walker Ridge was appropriate given the results of the Shenandoah 6 well (dry hole as seen at Q1.GG.41), and the subsequent lack of management commitment to the area” and that “based on the triggering events that occurred, the impairments were recorded in the proper period.”⁴⁷⁰

⁴⁶⁵ KPMG_APc_eA_0006079–096 at 085.

⁴⁶⁶ KPMG_APc_eA_0006079–096 at 085.

⁴⁶⁷ KPMG_APc_eA_0007469–475 at 471.

⁴⁶⁸ KPMG_APc_0009950–953.

⁴⁶⁹ Exhibit 343, KPMG_APc_eA_0008461–464 at 462.

⁴⁷⁰ KPMG_APc_0009950–953 at 952–953 (emphasis omitted).

234. Mr. Regan's analysis does not address any of KPMG's conclusions. As such, Mr. Regan fails to perform a critical and reasoned analysis because he fails to address the contemporaneous conclusions of other accounting professionals.

5. Mr. Regan's Opinion Is Predicated on an Assumption

235. Ultimately, in place of performing a competent and diligent analysis of the available information, Mr. Regan reached his opinion regarding the timing of the impairment of the Shenandoah Project based on an assumption provided to him.⁴⁷¹ As established above, the Regan Report fails to support this assumption with thorough analysis, and the analysis of the evidence purported to be "consistent" with this assumption fails to establish that the Shenandoah Project should have been impaired as of December 31, 2015.⁴⁷²

Respectfully submitted this 25th day of January, 2023



J. Richard Dietrich, PhD

⁴⁷¹ Regan Report, ¶ 93 ("Pursuant to the understanding that Plaintiffs will establish that by December 31, 2015 there was substantial doubt that the Shenandoah basin project (as a whole) would be economically viable (i.e., Condition 3), Shenandoah-related assets were impaired under the relevant GAAP set forth above." (emphasis added)).

⁴⁷² See, Sections X.B.2 and X.B.3.

Documents Relied Upon
Expert Report of J. Richard Dietrich, PhD

No. Document Title/Bates

Expert Reports

1. Expert Report of D. Paul Regan, November 9, 2022.

Legal Pleadings

2. Amended Complaint for Violations of the Federal Securities Laws, *Georgia Firefighters' Pension Fund v. Anadarko Petroleum Corp.*, filed on August 17, 2020.

Deposition Testimony

3. Deposition of Chris Camden, July 14, 2022.
4. Deposition of Patrick McGrievy, August 24, 2022.
5. Deposition of Ernest A. Leyendecker III, September 22, 2022.
6. Deposition of Catherine Anne Green, September 28, 2022.
7. Deposition of Lea Frye, October 7, 2022.
8. Deposition of Robert Daniels, October 13, 2022.
9. Deposition of James Kleckner, October 14, 2022.
10. Deposition of Mark L. Zajac, November 2, 2022.
11. Deposition of D. Paul Regan, January 20, 2023.

Deposition Exhibits

12. Exhibit 173, APC-00000768-769.
13. Exhibit 259, APC-00013459-460.
14. Exhibit 269, APC-00060382-383.
15. Exhibit 271, APC-00069320-321.
16. Exhibit 274, APC-00307805-807.
17. Exhibit 342, APC-00113409-417.
18. Exhibit 343, KPMG_APc_eA_0008461-464.
19. Exhibit 485, KPMG_APc_eA_0002511-529.
20. Exhibit 490, APC-00001864-865.
21. Exhibit 491, APC-00005093-100.
22. Exhibit 492, KPMG_APc_eA_0009897-920.
23. Exhibit 494, KPMG_APc_eA_0009644-668.
24. Exhibit 496, KPMG_APc_0026442-452.

Produced Documents

25. APC-00001813
26. APC-00002132
27. APC-00002563
28. APC-00012037
29. APC-00012384
30. APC-00018993
31. APC-00029762
32. APC-00029952
33. APC-00061952
34. APC-00089442
35. APC-00090153
36. APC-00091554
37. APC-00091671
38. APC-00091782
39. APC-00147909
40. APC-00147963
41. APC-00152882
42. APC-00153489
43. APC-00153862
44. APC-00154334
45. APC-00154339
46. APC-00156333
47. APC-00171559
48. APC-00173231
49. APC-00220001
50. APC-00223043
51. APC-00229007
52. APC-00245433
53. APC-00265282
54. APC-00284670
55. APC-00294937

Documents Relied Upon
Expert Report of J. Richard Dietrich, PhD

No. Document Title/Bates

56. APC-00304205
57. APC-00307132
58. APC-00308160
59. APC-00309632
60. APC-00325494
61. APC-00349767
62. APC-00356404
63. APC-00362397
64. APC-00577160
65. APC-00577161
66. APC-00622586
67. APC-00626533
68. APC-00636521
69. APC-00653389
70. APC-00704026
71. APC-00719562
72. APC-00736688
73. APC-00736694
74. APC-00737596
75. APC-00739080
76. APC-00784657
77. APC-00852342
78. APC-00853569
79. APC-00886732
80. APC-00931740
81. APC-01167170
82. APC-01228541
83. APC-01271207
84. APC-01281886
85. APC-01283759
86. APC-01354805
87. APC-01364738
88. APC-01376854
89. APC-01741046
90. APC-01749352
91. APC-01750958
92. KPMG_APc_0009950-953
93. KPMG_APc_eA_0002543
94. KPMG_APc_eA_0006079
95. KPMG_APc_eA_0006135
96. KPMG_APc_eA_0007382
97. KPMG_APc_eA_0007469
98. KPMG_APc_eA_0008001
99. KPMG_APc_eA_0008457

SEC Filings

100. Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2006, filed on February 28, 2007.
101. Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2007, filed on February 29, 2008.
102. Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2008, filed on February 25, 2009.
103. Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2009, filed on February 23, 2010.
104. Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2010, filed on February 23, 2011.
105. Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2011, filed on February 21, 2012.
106. Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2012, filed on February 19, 2013.
107. Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2013, filed on February 28, 2014.
108. Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 20, 2015.
109. Cobalt International Energy, Inc., Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 23, 2015.
110. ConocoPhillips, Form 10-K for the Fiscal Year ended December 31, 2014, filed on February 24, 2015.
111. Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2015, filed on February 17, 2016.
112. Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2016, filed on February 17, 2017.
113. Anadarko Petroleum Corporation, Form 10-Q for the Quarterly Period ended March 31, 2017, filed on May 2, 2017.
114. Anadarko Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2017, filed on February 15, 2018.
115. ConocoPhillips, Form 10-K for the Fiscal Year ended December 31, 2017, filed on February 20, 2018.

Documents Relied Upon

Expert Report of J. Richard Dietrich, PhD

No. Document Title/Bates

116. Occidental Petroleum Corporation, Form 10-K for the Fiscal Year ended December 31, 2019, filed on February 28, 2020.

Accounting Literature

- 117. Accounting Standards Codification, Topic 105, *Generally Accepted Accounting Principles*.
- 118. Accounting Standards Codification, Topic 360, *Property, Plant, and Equipment*.
- 119. Accounting Standards Codification, Topic 450, *Contingencies*.
- 120. Accounting Standards Codification, Topic 805, *Business Combinations*.
- 121. Accounting Standards Codification, Topic 932, *Extractive Activities – Oil and Gas*.
- 122. Accounting Standards Update No. 2010-03.
- 123. AU Section 110, *Responsibilities and Functions of the Independent Auditor*.
- 124. AU Section 722, *Interim Financial Information*.
- 125. FASB Exposure Draft, “Proposed Amendments to Statement of Financial Accounting Concepts,” September 24, 2015.
- 126. FASB Master Glossary.
- 127. FASB Staff Position No. FAS 19-1.
- 128. Statement of Financial Accounting Concepts No. 2, *Qualitative Characteristics of Accounting Information*.
- 129. Statement of Financial Accounting Concepts No. 8, *Chapter 1, The Objective of General Purpose Financial Reporting*.
- 130. Statement of Financial Accounting Concepts No. 8, *Chapter 3, Qualitative Characteristics of Useful Financial Information*.
- 131. Statement of Financial Accounting Standards No. 19, *Financial Accounting and Reporting for Oil and Gas Producing Companies*.

Public Materials and Information

- 132. AICPA, “Audit and Accounting Guides: Entities with Oil and Gas Producing Activities – Clarified,” August 1, 2018.
- 133. AICPA, “Code of Professional Conduct.”
- 134. AICPA, “Financial Reporting Executive Committee,” available at <https://www.aicpa.org/interestareas/frc/accountingfinancialreporting/finrec.html>.
- 135. AICPA, “Statement on Standards for Forensic Services.”
- 136. Anadarko Petroleum Corporation, “Anadarko Announces Another Deepwater Gulf of Mexico Discovery,” February 4, 2009, available at http://media.corporate-ir.net/media_files/nys/apc/Shenandoah2-4-09.pdf.
- 137. Code of Federal Regulations, Title 17 – Commodity and Securities Exchanges, Chapter II – Securities and Exchange Commission, Part 210.
- 138. FASB, “Rules of Procedure.”
- 139. FASB, “Standard-Setting Process,” available at <https://www.fasb.org/Page/PageContent?PageId=/about-us/standardsettingprocess.html&isstaticpage=true&bcpact=tff>.
- 140. FASB, “Superseded Standards,” available at <https://fasb.org/page/PageContent?PageId=/reference-library/superseded-standards.html>.
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- 142. Offshore Engineer, “Marathon sells Shenandoah stake,” available at <https://www.oedigital.com/news/449676-marathon-sells-shenandoah-stake>.
- 143. PCAOB, “Mission, Vision, and Values,” available at <https://pcaobus.org/about/mission-vision-values>.
- 144. PCAOB, “About,” available at <https://pcaobus.org/about>.
- 145. PCAOB, “Archive –Standing Advisory Group,” available at <https://pcaobus.org/about/advisory-groups/archive-advisory/standing-advisory-group>.
- 146. PCAOB, “Basics of Inspections,” available at <https://pcaobus.org/oversight/inspections/basics-of-inspections>.
- 147. PCAOB, “Enforcement,” available at <https://pcaobus.org/oversight/enforcement>.
- 148. PCAOB, “Standards,” available at <https://pcaobus.org/oversight/standards>.
- 149. SEC Advisory Committee on Improvements to Financial Reporting, “Final Report of the Advisory Committee on Improvements to Financial Reporting to the United States Securities and Exchange Commission,” August 1, 2008.
- 150. SEC Staff Accounting Bulletin No. 99, Materiality, August 12, 1999.
- 151. SEC, “All About Auditors: What Investors Need to Know,” June 24, 2002, available at: <https://www.sec.gov/reportspubs/investor-publications/investorpubsaboutauditors#>.
- 152. SEC, “Division of Enforcement,” available at <https://www.sec.gov/page/enforcement-section-landing>.
- 153. SEC, “Filing Review Process,” available at <https://www.sec.gov/divisions/corpfin/cffilingreview>.
- 154. SEC, “Financial Reporting Manual.”
- 155. SEC, “Speech by SEC Staff: Remarks Before the 2006 AICPA National Conference on Current SEC and PCAOB Developments by Scott A. Taub,” available at <https://www.sec.gov/news/speech/2006/spch121106sat.htm>.
- 156. SEC, “Speech by SEC Staff: Remarks before the 2007 AICPA National Conference on Current SEC and PCAOB Developments by Todd E. Hardiman,” available at <https://www.sec.gov/news/speech/2007/spch121107teh.htm>.
- 157. SEC, “What We Do,” available at <https://www.sec.gov/about/what-we-do>.

Other Documents

- 158. Brady, Jennings, and Shappard, “Petroleum Accounting: Principles, Procedures and Issues,” PwC, 8th Edition.
- 159. Bureau of Ocean Energy Management, U.S. Department of the Interior, “Deepwater Gulf of Mexico,” December 31, 2019.
- 160. Deloitte, “A Roadmap to Accounting for Contingencies and Loss Recoveries,” 2022.
- 161. Frank Jahn, Mark Cook, and Mark Graham, “Hydrocarbon Exploration and Production,” 2nd Edition, (Oxford, UK: Elsevier, 2008).
- 162. Harrison, Kenneth and Lawrence Tomassini, “Judging the Probability of a Contingent Loss: An Empirical Study,” Contemporary Accounting Research, Vol. 5 (2), Spring 1989.
- 163. Joseph Aharony and Amihud Dotan, “A Comparative Analysis of Auditor, Manager and Financial Analyst Interpretations of SFAS 5 Disclosure Guidelines,” Journal of Business Finance and Accounting 31, nos. 3–4 (2004).
- 164. *TSC Indus., Inc., v. Northway, Inc.*, 426 U.S. 438 (1976).

Note: In addition to the documents in this list, I relied upon all documents cited in my report, appendices, and backup.

J. RICHARD DIETRICH

Professor Emeritus of Accounting
Department of Accounting and Management Information Systems
The Ohio State University

<i>University Address:</i>	400 Fisher Hall Fisher College of Business The Ohio State University 2100 Neil Avenue Columbus, OH 43210	<i>Home Address:</i> 
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EDUCATION:

Ph.D., Industrial Administration, Carnegie-Mellon University, 1981.
M.S., Accounting, Carnegie-Mellon University, 1977.
M.S., Measurement and Control, Carnegie-Mellon University, 1974.
B.S., Physics, Carnegie-Mellon University, 1973.

POSITIONS AT COLLEGES AND UNIVERSITIES:

Professor Emeritus of Accounting, The Ohio State University, 2020-present.
Professor of Accounting, The Ohio State University, 2000-2020.
Chair, Department of Accounting and MIS, The Ohio State University, 2000-2012, 2015-2016.
Professor of Accountancy, University of Illinois at Urbana-Champaign, 1991-2000.
Professor of Accounting, University of Texas at Austin, 1990-1991.
Associate Professor of Accounting, University of Texas at Austin, 1985-1990.
Visiting Associate Professor of Accounting, University of Chicago, 1987-1988.
Assistant Professor of Accounting, University of Texas at Austin, 1981-1985.
Visiting Assistant Professor of Industrial Administration, Carnegie-Mellon University, 1982-1983.
Instructor of Accounting, University of Texas at Austin, 1979-1981.

ACADEMIC HONORS:

- The Ohio State University Fisher College of Business, Executive MBA Faculty Recognition Award for Outstanding Teaching, June 2005.
- Deloitte & Touche Professor, University of Illinois at Urbana-Champaign, 1991-2000.
- Arthur Andersen & Co. Centennial Faculty Fellow, University of Texas at Austin, 1989-1991.
- Peat Marwick Mitchell & Co. Centennial Faculty Fellow, University of Texas at Austin, 1984-1989.
- University of Texas College of Business Administration Foundation Advisory Council Award for Teaching Innovation, 1986.
- University of Texas University Accounting Association Outstanding Faculty Member Award, 1985.
- University of Texas Joe D. Beasley Award for Teaching Excellence in the Graduate School of Business, 1984.

PROFESSIONAL EMPLOYMENT/CONSULTING EXPERIENCE/BOARD SERVICE:

- Member, Financial Reporting Executive Committee (FinREC) of the American Institute of Public Accountants, September 2015-March 2019.
- OSU Health Plan Inc., Board of Directors, Finance Committee Member and Chair, March 2007-June 2010, July 2011-December 2016.
- Member, Standing Advisory Group of the Public Company Accounting Oversight Board, January 2007-December 2008.
- Expert witness or consultant addressing securities litigation and professional responsibilities, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023.
- National Association of Securities Dealers, Presenter for “Understanding the Sarbanes-Oxley Act Symposium,” November 2003, April 2004, June 2005, July 2006.
- U.S. Securities & Exchange Commission, Academic Fellow in the Office of the Chief Accountant, 1999-2000.
- United States Business School in Prague, Faculty Instructor, Fall 1998, Fall 1999, Fall 2000.
- Coopers & Lybrand, LLP, member of Academic Advisory Committee, 1994-1997.
- AICPA National Management Advisory Services Training Program, Associate Director, June 1986, June 1987.

PUBLICATIONS: Articles in Refereed Journals

(with Karl A. Muller and Edward J. Riedl) “On the Validity of Asymmetric Timeliness Tests of Accounting Conservatism,” *Review of Accounting Studies*, May 2022.

(with Zahn Bozanic and Bret Johnson) “SEC Comment Letters and Firm Disclosure.” *Journal of Accounting and Public Policy*, September 2017.

“Discussion of Information Externalities Along the Supply Chain: The Economic Determinants of Suppliers’ Stock Price Reaction to their Customers’ Earnings.” *Contemporary Accounting Research*, February 2011.

(with Karl A. Muller and Edward J. Riedl) “Asymmetric Timeliness Tests of Accounting Conservatism.” *Review of Accounting Studies*, March 2007.

(with Steven Kachelmeier, Don Kleinmuntz, and Tom Linsmeier) “An Experimental Examination of Forward-Looking, Non-Financial Performance Disclosures.” *Journal of Accounting Research*, September 2001.

(with Mary S. Harris and Karl A. Muller III) “The Reliability of Investment Property Fair Value Estimates”, *Journal of Accounting and Economics*, October 2000.

(invited commentary) “Discussion of Voluntary Disclosure Choice and Earnings Information Transfer.” *Journal of Accounting Research*, Supplement 1989.

(with Darwin Klingman, Michael Mannino, John Mote, Nancy V. Phillips, and David Schkade) “Educating Information Systems Managers: A New Approach,” *Journal of Information Systems*, Spring 1989.

(with Robert B. Thompson and Chris Olsen) “The Influence of Estimation Period News Events on Standardized Market Model Prediction Errors,” *The Accounting Review*, July 1988.

(with Robert B. Thompson and Chris Olsen) “Attributes of News About Firms: An Analysis of Firm-Specific News Reported in the Wall Street Journal Index.” *Journal of Accounting Research*, Fall 1987.

(with Chris Olsen) “Vertical Information Transfers: The Association Between Retailers’ Sales Announcements and Suppliers’ Security Returns.” *Journal of Accounting Research*, Supplement 1985.

(with James W. Deitrick) “Bond Exchanges in the Airline Industry: Analyzing Public Disclosures,” *The Accounting Review*, January 1985.

(invited commentary) “Discussion of Methodological Issues Related to the Estimation of Financial Distress Prediction Models: A Summary of the Discussion.” *Journal of Accounting Research*, Supplement 1984.

“Effects of Early Bond Refundings: An Empirical Investigation of Security Returns.” *The Journal of Accounting and Economics*, April 1984.

(with Walter T. Harrison and Lawrence A. Tomassini) “The Use of Control Groups in Capital Market Research.” *Journal of Accounting Research*, Spring 1983.

(with Robert S. Kaplan) "Empirical Analysis of the Commercial Loan Classification Decision." *The Accounting Review*, January 1982.

(with Dennis Brandl and James M. Sivak) "Soft Landing a Simulated Rocket Under Computer Control." *Computer*, December 1975.

(with Roman L. Weil) "Partial Rank, Linear Management Information Systems." *The Accounting Review*, October 1974.

PUBLICATIONS: Articles in Non-Refereed Journals

(with D. Paul Newman) "Cooperative Behavior in a Multiperiod Agency Setting."
(abstract only) *Proceedings of the American Accounting Association 1982 Mid-West Regional Meeting*.

WORKING PAPERS:

(with Karl A. Muller and Edward J. Riedl) "Regarding the Use of Return Variance Variables to Debias the Asymmetric Timeliness Measure," 2022.

GRANTS:

(with Steve Kachelmeier, Don Kleinmuntz and Tom Linsmeier) Coopers & Lybrand Foundation, "An Experimental Laboratory for Financial Reporting Standards: The Price Risk Experiment," \$78,519, January 1998.

(with Don Kleinmuntz and Tom Linsmeier) Coopers & Lybrand Foundation, "An Experimental Laboratory for Financial Reporting Standards," \$62,686, August 1996.

Accounting Education Change Commission, Project Discovery grant to the University of Illinois (co-author of proposal), \$250,000, January 1991.

IBM Corporation, Management of Information Systems Grant (member of project team), \$2.8 million, April 1985.

University of Texas, Project QUEST, "Large Scale Token Ring Network," \$200,000 equipment grant, November 1986.

Peat Marwick Foundation, Research Opportunities in Auditing Grant, June 1984.

University of Texas, Graduate School of Business

Summer Research Grant, June-August 1985.

Summer Research Grant, June-August 1984 (funding not taken).

Academic Development Grant (with J.C. Fellingham), June-August 1982 (funding not taken).

Academic Development Grant (with J.C. Fellingham), June-August 1981.

University of Texas, University Reserach Institute

Research Grant (with Chris Olsen and Robert Thompson), Spring 1985.

Special Research Grant, November 1981.

SEMINAR AND CONFERENCE PAPERS PRESENTED:

American Accounting Association

Accounting Program Leadership Group Meeting, February 2005.

Annual Meeting, August 1998, August 1994, August 1989, August, 1987, August 1985, August 1984.

Midwest Regional Meeting, March 1982

At universities

The Ohio State University, February 2000, June 1998.

Virginia Commonwealth University, December 1999.

New York University, October 1997.

Southern Methodist University, November 1994.

Stanford University, July 1990.

Duke University, March 1990.

University of Illinois, February 1990.

Texas Christian University, October 1987.

University of Florida, November 1986.

University of Michigan, March 1986.

University of Pittsburgh, July 1983.

Vanderbilt University, October 1982.

Carnegie-Mellon University, October 1982.

University of California at Berkeley, November 1981.

Northwestern University, March 1980.

University of Michigan, March 1980.

At other meetings:

American Medical Records Association Annual Meeting, "Training Information Managers of the Future," October 1988.

Workshop on Collaborative Learning Classrooms, "Integrating Technology into Teaching: Classroom 2000," University of Maryland, June 1988.

IBM Higher Education Conference, "Local Area Networks," March 1988.

OAC'86 (sponsored by The American Federation of Information Processing Societies-AFIPS), "Future Directions in Mainframe Connected Personal Computers," March 1986.

Conference on Accounting Earnings and Security Valuation: Current Research Issues, sponsored by the Institute of Professional Accounting of the University of Chicago, June 1985.

Workshop on the Impact of Micro-Computers In Graduate Schools of Business, Stanford University, February 1985.

Peat Marwick Mitchell & Co. Mid-South and Southwest Annual Bank Meeting, "Modeling Risk Classifications for Bank Loans and Receivables," June 1984.

DISCUSSANT, SESSION CHAIR, CONFERENCE ORGANIZER:

Session Chair, American Accounting Association Annual Meeting, 2002.
Session Chair, American Accounting Association Annual Meeting, 1994.
Session Chair, American Accounting Association Annual Meeting, 1992.
Discussant, American Accounting Association Annual Meeting, August 1987.
Discussant, American Accounting Association Annual Meeting, August 1981.

EDITORIAL SERVICE: Editorial Boards

Associate Editor, *Journal of Accounting and Economics*, 1991-1996.
Member, *The Accounting Review*, 1987-1989.

EDITORIAL SERVICE: Other

Journal of Accounting Research
Journal of Accounting, Auditing and Finance
Quarterly Review of Economics and Business
Journal of Accounting and Public Policy
Contemporary Accounting Research
Journal of Finance
Journal of Financial and Quantitative Analysis

OTHER REVIEW SERVICES:

Faculty reviews requested by the following institutions:

University of California at Irvine
University of Colorado
Emory University
Harvard University
University of Iowa
University of Michigan
University of Notre Dame
University of Oregon
University of Pennsylvania
University of Rochester
Southern Methodist University
Stanford University
Washington University

AACSB accounting accreditation reviews requested by the following institutions:

University of Arizona
University of Wisconsin

University of Miami
University of Kentucky
University at Buffalo, State University of New York
University of Utah
University of Southern California
Michigan State University
Virginia Tech

Program reviews requested by the following institutions:

University of Arizona
Claremont McKenna College
University of Iowa
University of Utah

MEMBERSHIP IN ACADEMIC ORGANIZATIONS:

American Accounting Association

POSITIONS IN ACADEMIC ORGANIZATIONS:

Member, Accreditation Quality Committee, Association to Advance Collegiate Schools of Business, July 2010-July 2013.

Member, Accounting Accreditation Committee, Association to Advance Collegiate Schools of Business, July 2007-June 2010.

Chair, American Accounting Association Committee on Regulation, 2006-2007.

American Accounting Association SEC Liaison Committee, 2000-2003.

American Accounting Association Committee on Notable Contributions to the Accounting Literature, 1982-83, 1987-88, 1999-2000.

American Accounting Association Outstanding Educator Award Committee, 1992-1993.

American Accounting Association Annual Program Committee, 1991-1992.

American Accounting Association Project Consulting Committee, 1981-1984.

INSTRUCTIONAL INNOVATIONS AND DEVELOPMENTS:

Revision of Illinois MBA core curriculum to integrated core curriculum. Principal designer of overall curriculum design; detailed accounting theme designer, 1994-1995.

Revision of Introductory Accounting courses at the University of Illinois to incorporate Project Discovery concepts and pedagogy, 1991-1994.

Associate Director of Project Discovery, a project to revise undergraduate accounting education; funded in part by a \$250,000 grant to the University of Illinois from the Accounting Education Change Commission, 1991-1993.

Associate Director of the Information Systems Management Concentration, Graduate School of Business, University of Texas, a curriculum development project funded in part by a \$1,000,000 grant from IBM Corporation, 1985-1991. Duties included design and implementation of two MBA courses:

BA 390C: Computer Systems Hardware and Software

BA 390J: Data Communications, Networks, and Distributed Computing

FORMAL DEVELOPMENT AND RENEWAL: Conferences Attended

Annual Meeting, American Accounting Association, San Diego, CA, August 2017

FASB/AAA Conference, Norwalk, CT. January 2016.

FASB/AAA Conference, Norwalk, CT. January 2015.

FASB/AAA Conference, Norwalk, CT. January 2014.

FASB/AAA Conference, Norwalk, CT. December 2012.

FASB/AAA Conference, Norwalk, CT. December 2011.

Annual Meeting, American Accounting Association, Denver, CO, August 2011

FASB/AAA Conference, Norwalk, CT. November 2010.

Annual Meeting, American Accounting Association, San Francisco, CA, August 2010

FASB/AAA Conference, Norwalk, CT. November 2009.

FASB/AAA Conference, Norwalk, CT. November 2008.

FASB/AAA Conference, Norwalk, CT. November 2007.

Annual Meeting, American Accounting Association, Chicago, IL, August 2007

Accounting Program Leadership Group Annual Seminar, San Diego, CA, February 2007.

FASB/AAA Conference, Norwalk, CT. December 2006.

Annual Meeting, American Accounting Association, Washington, DC, August 2006

FASB/AAA Conference, Norwalk, CT. December 2005.

Financial Accounting and Reporting Section, American Accounting Association, Austin, TX. January, 2004

Accounting Program Leadership Group Annual Seminar, Las Vegas, NV, February 2004.

Annual Meeting, American Accounting Association, Orlando, FL, August 2004

FASB/AAA Conference, Norwalk, CT. December 2004.

PCAOB/AAA Conference, Washington, DC. December 2004.

Financial Accounting and Reporting Section, American Accounting Association, Orlando, FL., January, 2003

Annual Meeting, American Accounting Association, Honolulu, HI, August 2003

Annual Update, Office of the Chief Accountant, U.S. Securities and Exchange Commission, Washington, D.C., June 2003

FASB/AAA Conference, Norwalk, CT. December 2003

Journal of Accounting and Economics Conference, sponsored by the University of Rochester and the Massachusetts Institute of Technology, June 2001.

Journal of Accounting Research Conference, sponsored by the University of Chicago, May 1996.

Corporate Accounting Policy Seminar, sponsored by the American Accounting Association, October 1995.

Financial Reporting Research Conference, sponsored by the American Accounting Association and the Financial Accounting Standards Board, December 1994.

Year 2000 Curriculum Conference, University of Southern California, March 1994.

Financial Reporting Research Conference, sponsored by the American Accounting Association and the Financial Accounting Standards Board, December 1993.

Rethinking Financial Reporting: An Agenda for the Twenty-First Century, sponsored by Deloitte & Touche, April 1993.

DOCTORAL DISSERTATION COMMITTEES:

<u>Name</u>	<u>University</u>	<u>Year</u>	<u>Major Supervision</u>	<u>Reading Member</u>
Neeraj Mittal	The Ohio State University	2004	Yes	
Taehee Choi	The Ohio State University	2002		Yes
Greg Sommers	The Ohio State University	2002		Yes
Takashi Yaekura	University of Illinois	2000	Yes	
Joe Comprix	University of Illinois	2000	Yes	
Vernon Richardson	University of Illinois	1997	Yes	
Karl Muller	University of Illinois	1997	Yes	
TJ Atwood	University of Illinois	1995	Yes	
Taehee Lee	University of Illinois	1994	Yes	
Thomas R. Finnegan	University of Illinois	1993	Yes	
William D. Terando	University of Illinois	1993	Yes	
David Manry	University of Texas	1992	Yes	
Craig Lefanowiz	University of Texas	1990		Yes
Sid Howard Credle	University of Texas	1989	Yes	
In-Chul Na	University of Texas	1987	Yes	
Wayne H. Shaw	University of Texas	1985	Yes	
Jack Edward Wilkerson	University of Texas	1984	Yes	
Jean Marie Baldwin Hudson	University of Texas	1984		Yes
Michael Lloyd Ettredge	University of Texas	1982		Yes

RECENT UNIVERSITY SERVICE

Ohio State University Senate; member, 2012-2016.

Ohio State University Senate Fiscal Committee; member, 2012-2018; chair 2013-2017.

Ohio State University Faculty Cabinet, member, 2013-2017.

Ohio State University Risk Management Committee; member, 2013-2020.

Ohio State University Research Committee, member, 2013-2017.

Ohio State University Parking Advisory Committee, member, 2015-2019.

J. RICHARD DIETRICH
Testimony Provided Within Past Four Years

1. Securities and Exchange Commission v. RPM International, Inc. and Edward W. Moore, Case No. 1:16-cv-01803. United States District Court for the District of Columbia.

Deposition testimony: April 2019

2. In re: FIRSTENERGY SOLUTIONS CORP., et al., Debtors, Chapter 11, Case No. 18-50757 (Jointly Administered). United States Bankruptcy Court, Northern District of Ohio.

Declaration filed: January 2020

3. In Re Chicago Bridge & Iron Company N.V. Securities Litigation, Case No. 1:17-CV-1580. United States District Court, Southern District of New York.

Report filed: April 2020

4. DANIEL COHEN, individually and as next friend of RENEE COHEN, ALBERT COHEN, LAUREN COHEN, and MARTIN COHEN, BETTIE COHEN, ZEPHYR OIL & GAS FUNDING CO., LLC, ZEPHYR ACQUISITION HOLDINGS LLC, COHEN CAPITAL MANAGEMENT, and COHEN ASSET MANAGEMENT LLC, Plaintiffs, VS. CHICAGO BRIDGE & IRON COMPANY N.V., PHILIP K. ASHERMAN, RONALD A. BALLSCHMIEDE, and WESTLEY S. STOCKTON, Defendants. CASE NO. 17-10-128720, DISTRICT COURT OF MONTGOMERY COUNTY, TEXAS, 457th JUDICIAL DISTRICT.

Report filed: December 2020

Deposition Testimony: December 2020

Trial Testimony: January 2021

5. Carolyn J. Logan, Plaintiff, v. Salix Pharmaceuticals, Ltd., and Valeant Pharmaceuticals International, N/K/A Bausch Health Americas, Inc., Defendants. Case No. 2019-0059-SG, In the Court of Chancery of the State of Delaware.

Report filed: May 2022

Deposition Testimony: January 2023

Exhibit 122

To: Trautman, Tim[Tim.Trautman@anadarko.com]
From: Ramsey, Jake[O=APC/OU=DOMESTIC/CN=RECIPIENTS/CN=EKD126]
Sent: Tue 4/1/2014 10:03:55 PM Coordinated Universal Time
Subject: FW: Shenandoah UW-1 Update with Appraisal well Option locations
Attachment: Cobalt_Shenandoah Partner meeting 25July13.pdf
Attachment: Shenandoah (MRO Map).pdf
Attachment: Shenandoah_COP_displays_31_July_2013 to Partners.pdf
Attachment: Shenandoah_partner_meeting_July25_2013_Venari_Wilcox2andCretaceous_maps.pptx

Tim,

Just FYI below on email exchange between myself and our development counterparts on Shenandoah. Paints a good picture on their value of the north south fault trending down the center of Shenandoah and how it impacts THEIR forward planning.

I shared with them, the partner structure maps we previously obtained last year. It will be interesting to see Conoco and Marathon's updated interpretations tomorrow.

Jake

From: Ramsey, Jake
Sent: Tuesday, April 01, 2014 4:58 PM
To: Rodriguez, Arnold; Browning, Brad; Frye, Lea; McGrievy, Pat; Chandler, Paul; Butaud, Todd
Subject: RE: Shenandoah UW-1 Update with Appraisal well Option locations

Thanks Brad. I'll check with Jim Kunning on IF the well has any bottom hole flexibility available.

An important data point to consider though, is the raw lack of structural consensus (internally and externally) that currently exists at Shenandoah. I have seen eight different maps of Shenandoah from six different companies (two different maps internally), and the only similarity between the 8 is the overall 3-way shape. Attached are the maps from our Shen partners, that were traded several months ago. Unfortunately at the pace I am observing, we will likely not have a consistent map between all respective mappers, until a whole lot more data comes to light (final and consistent seismic to start, pressure data, FLAIR/geochemistry, and possibly even production PTA). Given all the structural uncertainties we currently have with everyone involved, I think it will be a very hard task to persuade a majority of parties (internally and externally) to modify the current bottom hole location of Shen 3, based purely on the Yucatan pressure data. I'll personally be looking at it hard and weighing the options appropriately, but I am mindful of the very complex dance that will ensue.

With all that said though, if any north-south faulting exists that could potentially compartmentalize Shenandoah, it would represent the largest risk element to appropriately appraising this project. It's my opinion, that we should come to a consensus internally, on the probability of any potential faulting at Shenandoah, and particularly regarding the "pink" fault. We're using the same data, we're all on the same APC GOM team, so there should be no real reason we can't reach a consensus. If we are aligned internally, then we will be able to make the appropriate appraisal decisions as operator.

Jake

From: Rodriguez, Arnold
Sent: Tuesday, April 01, 2014 12:40 PM
To: Browning, Brad; Frye, Lea; McGrievy, Pat; Chandler, Paul; Butaud, Todd
Cc: Ramsey, Jake
Subject: RE: Shenandoah UW-1 Update with Appraisal well Option locations

Brad,

I hope we have the flexibility, if necessary, to land the S3 well in the oil column using all the information at our disposal to drive that target.

Thanks,
Arnold

From: Browning, Brad
Sent: Tuesday, April 01, 2014 12:34 PM
To: Rodriguez, Arnold; Frye, Lea; McGrievy, Pat; Chandler, Paul; Butaud, Todd
Cc: Ramsey, Jake
Subject: RE: Shenandoah UW-1 Update with Appraisal well Option locations

Case for Flexibility in Finalizing the Bottom-hole Location for Appraisal Well S3

If the "Pink" fault seals, the oil-water contact in the S3 fault block is independent from the S2 fault block.

If we receive Yucatan pressure data in the aquifer, we should have an estimated oil-water contact based on gradients from S2, but it will not necessarily be relevant for the S3 fault block.

If we find that the estimated contact is above the planned S3 penetration, intentionally drilling a wet S3 test will do nothing to definitely test the large S3 fault block.

We cannot assume there is oil above us at S3. (In K2 for example, the north fault block is HC charged in the M14 but the south fault block is wet.)

With effectively only one well in our reservoir, I think confirming HC pore volume is still our first priority. Testing aquifer properties might be important, but only after confirming commercial OIP.

I believe the sensible approach is to not "finalize" the S3 bottom-hole location until we have data from Yucatan. And if the projected contact is at a level between S2 and S3, we should move S3's BHL to target above this notional OWC.

Comments?

Thanks.

Brad

From: Rodriguez, Arnold
Sent: Tuesday, April 01, 2014 11:49 AM
To: Frye, Lea; McGrievy, Pat; Chandler, Paul; Browning, Brad; Butaud, Todd
Subject: Shenandoah UW-1 Update with Appraisal well Option locations

B:\05_SHENANDOAH_WR51-52-96\08_GEOLOGY\2014_Dev_Mapping\2014-04-01_ShenOnlyDev_UW-1_AppraisalOptions.pptx

Pat,
You had asked for a slide (like#3) that could summarize our options for appraisal pending S3 results.

Arnold

Exhibit 123

To: Hollek, Darrell[Darrell.Hollek@anadarko.com]
From: McGrievy, Pat[/O=APC/OU=DOMESTIC/CN=RECIPIENTS/CN=QAJ309]
Sent: Tue 3/24/2015 12:50:43 PM Coordinated Universal Time
Subject: RE: 2015_03_Shenandoah_Economics_Update.pptx

Keep in mind that there's still room for some optimization and additional sensitivities:

- Additional commingling strategies which can help to sustain max rates over longer periods of time
- Incorporating the Shen 5 as part of a dry tree or SSTB scenario for Phase 1; it's currently considered a sunk cost appraisal well – \$236 MM; this would eliminate the need for one of the dry tree Drill wells at \$150 MM. We've resisted this approach since we don't know exactly where the Shen 5 will be placed. It can be run as a sensitivity, however.
- Better definition on asphaltene onset pressures which will impact rates and EUR.

From: Hollek, Darrell
Sent: Tuesday, March 24, 2015 7:26 AM
To: McGrievy, Pat
Subject: RE: 2015_03_Shenandoah_Economics_Update.pptx

Interesting. One of the issues I know Chuck still has is that Portfolio still contains Exploration scenario which he knows is different than our runs. Like I told him our numbers are built on the latest assumptions of costs and activities on what we know today.

From: McGrievy, Pat
Sent: Tuesday, March 24, 2015 7:18 AM
To: Hollek, Darrell
Subject: RE: 2015_03_Shenandoah_Economics_Update.pptx

Darrell, FYI, Lea also received a request from exploration (Chris Camden) earlier in the day to provide them with our economic dataset. We've provided them with the same dataset as well.

Pat

From: Frye, Lea
Sent: Monday, March 23, 2015 4:24 PM
To: Hollek, Darrell
Cc: McGrievy, Pat
Subject: 2015_03_Shenandoah_Economics_Update.pptx

Darrell,

As requested, I have attached updated economics for the Phase 1 dry tree option at current invest and upside pricing. I am currently working through Phase 2 dry tree option and the wet tree options and should have updates throughout the week if you are in need.

Regards,

Lea

Sr Staff Reservoir Engineer
Shenandoah Project
1201 Lake Robbins Drive
The Woodlands, Texas 77380
Ph: 832-636-1439
Cell: 281-687-9379

Exhibit 124



Exploration Expense Testwork Memo -
Dry Hole Expense

Client		Period-end
Anadarko Petroleum Corporation		9/30/2016
Prepared by	Date	W/P reference
Melissa Smith	10/20/2016	Q3.GG.41

Purpose:

The purpose of this work paper is to perform review procedures over the completeness, existence, and accuracy of the Company's dry hole expense for QTD 9/30/2016.

Background:

Anadarko follows the Successful Efforts method of accounting for oil & gas properties in accordance with FASB ASC 932, *Financial Accounting and Reporting by Oil and Gas Producing Companies*. According to this standard, certain costs incurred to explore oil and gas properties must be immediately expensed as incurred.

FASB ASC 932-360-25-8 provides guidance on how to identify an *exploration cost*:

Exploration involves (a) identifying areas that may warrant examination and (b) examining specific areas that are considered to have prospects of containing oil and gas reserves, including drilling exploratory wells and exploratory-type stratigraphic test wells. Exploration costs may be incurred both before acquiring the related property (sometimes referred to in part as prospecting costs) and after acquiring the property.

Once exploration costs have been identified, it must be determined whether that cost should be immediately expensed as an exploration expense, or rather capitalized in PP&E. According to FASB ASC 932-360-25-9 the following exploration costs should be expensed as soon as they are incurred:

Geological and Geophysical Costs: Costs of topographical, geological, and geophysical studies, rights of access to properties to conduct those studies, and salaries and other expenses of geologists, geophysical crews, and others conducting those studies.

Costs of carrying and retaining undeveloped properties: Such as delay rentals, ad valorem taxes on the properties, legal costs for title defense, and the maintenance of land and lease records.

Dry hole and bottom hole contributions: Money or property paid to an operator for use in drilling a well on property in which the payer has no property interest. Dry hole contributions are payable only in the event the well reaches an agreed depth and is found to be dry, whereas bottom hole contributions are payable regardless of the well's productivity. The payers may be entitled to information on the well (per *Petroleum Accounting: Principles, Procedures, & Issues, 6th edition*).

Certain exploration costs are initially capitalized when incurred, but later charged to exploration expense if certain conditions apply. FASB ASC 932-360-25-9 discusses these situations:

Dry Hole Expense:

The costs of drilling exploratory wells and the costs of drilling exploratory-type stratigraphic test wells shall be capitalized as part of the enterprise's uncompleted wells, equipment, and facilities pending determination of whether the well has found proved reserves. If the well has found proved reserves, the capitalized costs of drilling the well shall become part of the enterprise's wells and related equipment and facilities (even though the well may not be completed as a producing well); if, however, the well has not found proved reserves, the capitalized costs of drilling the well, net of any salvage value, shall be charged to expense.

Procedures/ Results:

1. KPMG obtained the Company's accounting policy (Accounting Bulletin 20-5) associated with exploration expense. KPMG notes that Anadarko's accounting policy for exploration expense is in accordance with FASB ASC 932 "Financial Accounting and Reporting by Oil and Gas Producing Companies" and generally accepted accounting principles.
2. KPMG obtained a schedule of YTD/QTD 9/30/2016 dry hole expense as detailed at **Q3.GG.40**. KPMG set a scope of \$20 million (1/6 of PM) for dry holes to perform review procedures over, and noted the following met scope for testing:
 - *Shenandoah- GOM Offshore*
 - *Rossignol IX- Cote d'Ivoire*
 - *Tubarao Tigre #1 & #2- Mozambique*
 - *Orca #4- Mozambique*
3. For each dry hole expense selection that met scope, KPMG obtained the following:
 - The approved AFE documentation that supports the costs incurred and expensed;
 - The journal entry support for the debit to dry hole expense and credit to capitalized costs
 - The Company's rationale and consideration for possible impairment in surrounding areas; and
 - The AFE Gross vs Net summary and AFE transactional detail to validate that all of the costs recorded to the AFE have been written off to dry hole expense.

See further discussion of each dry hole expense selection chosen below. See Dry Hole Expense schedule at **Q3.GG.40** for related tickmarks.

- A. Shenandoah- Walker Ridge 52 002- GOM Offshore (AFE 2087315)- \$56.7 million
Shenandoah- Walker Ridge 52 002 BP01- GOM Offshore (AFE 2107090)- \$7.1 million

Background: The Shenandoah wells 52 002 and 52 002 BP01 (collectively known as the Shenandoah-3 well) is located in the Gulf of Mexico Offshore region. In February 2009, the Company publicly announced an oil discovery at its Shenandoah discovery well located in the Walker Ridge block 52 in the Deepwater Gulf of Mexico. The discovery well encountered net oil pay approaching 300 feet in the Wilcox formation in the Lower-Tertiary play.

Review Procedures: KPMG obtained the AFE information for AFE 2087315 and notes that the AFE was approved by Al Walker (Chairman, President, and CEO) on 4/8/2014 for \$225.1 million gross (30% WI, \$67.5 million net). KPMG obtained the AFE information for AFE 2107090 and notes that the AFE was approved by Bob Daniels (Executive Vice

kpmg

Dry Hole Expense

President- International and Deepwater Exploration) on 11/19/2014 for \$50.2 million gross (30% WI, \$15 million net). KPMG then obtained the journal entry support for the debit to Dry Hole Expense and credit to AUC Exploratory IDC for \$63.8 million and Exploration Dry Hole for \$63.8 evidencing that the entire AFE was written off in Q3 2016.

KPMG notes that the Shenandoah-3 well was considered exploratory in nature until Q1 2016, at which point, given the overall success of the Shenandoah play, the well was transferred to the Company's developmental team for further analysis. The Shenandoah-3 well was also a water drive reservoir, and as such required the use of a pressurized water to extract the resources. Once under the management of the developmental team, the Company began evaluating the results of the exploratory activities, as well as whether or not the water injection technology developed for the Shenandoah-3 well would be applicable for other Shenandoah and Gulf of Mexico wells. The development team began running various simulations utilizing the seismic information available. Then during Q3 2016, the development team determined based on their modeling of the well, its results, and the analysis over the water injection that the Shenandoah-3 well would not be used as a water injection site and that it was not economically useful for other wells in the play. As such, the determination was made to transfer the Shenandoah-3 well to dry hole expense during the 3rd quarter. KPMG notes that it is not unreasonable for the Company to take 6-8 months of analysis (from the time the well was transferred to the development team in Q1 2016 to the time the decision was made to dry hole in Q3 2016) to determine the economic viability of an offshore well given the depth of the drilling and the inherent uncertainty around deepwater exploratory wells. KPMG further notes that this timing is consistent with offshore wells analyzed in prior year audits, and as such p/f/r.

Consideration of possible impairments to surrounding areas: KPMG notes that per the Q3 2016 Domestic Exploration Exposure report, there is \$253 million in suspended wells relating to the Shenandoah 1, 2, 4 and 5 wells, with a Shenandoah-6 well planned to be spud before the end of 2016. Of these wells, KPMG notes that the Shenandoah 5 and 6 wells are being drilled to be producing wells. KPMG notes that the Shenandoah-3 well served as an exploratory well, and given the results obtained which led to the dry hole in Q3 2016 the Company has shifted the development plan for the play geographically closer to the other 4 successful wells, as the Shenandoah-3 well was exploring the northern part of the play. Additionally, KPMG notes that the Shenandoah-3 well will not be used for an injection site and even though the Shenandoah-3 proved unsuccessful, the Company believes that water injection is still necessary for surrounding areas. Further, KPMG inquired of David Janise, General Manager Offshore, who noted that the results of the Shenandoah-3 well does not mean the rest of the overall area is unsuccessful. Rather, the well served to support the Company's development plan of the area. Said another way, given that there is currently drilling in the area and the success of the other Shenandoah wells, KPMG does not consider it unreasonable that the remaining Shenandoah wells were not expensed as dry holes. As such, KPMG p/f/r.

B. Rossignol IX- Cote d'Ivoire Block 528 (AFE 2117802)- \$38 million

Background: The Rossignol IX well on Block 528 is located in Cote d'Ivoire. This block was acquired in Q3 2013 along with block 529. These two blocks were set to expire in Q3 2016, however, the Company received a 10 month extension from the government extending the exploration date to July 2017. The Rossignol IX well was spud in August 2016 with an exploration well drilled in September 2016. The well had encountered

water contact and was therefore deemed non-commercial. As such, the well was dry holed in Q3 2016.

Review Procedures: KPMG obtained the AFE information for AFE 2117802 and notes that the AFE was approved by Denna Johnson (Manager- Exploration West/South Africa) on 10/14/2015 for \$500,000 gross (100% WI, \$500,000 net). Further, KPMG obtained a supplemental AFE and notes that the supplemental AFE was approved by Al Walker (Chairman, President, and CEO) on 7/27/2016 for \$41 million gross (100% WI, \$41 million net). KPMG then obtained the journal entry support for the debit to Dry Hole Expense and credit to AUC Exploratory IDC for \$37.9 million and Exploration Dry Hole for \$37.9 evidencing that the entire AFE was written off during Q3 2016.

KPMG obtained email support dated 10/03/2016 between Denna Johnson (Manager- Exploration West/South Africa), Ryan Morgan (Planning Supervisor- Exploration Engineering Planning), Darrell Havill (Manager- International Accounting), Louis Williams (Assistant Controller- Expenditure, International & Risk Accounting), and Ego Esiri (Finance Manager- West Africa) confirming the discussion of Rossignol IX block 528 as dry holed. KPMG notes that per the Exploration Exposure Summary, as the well found non-commercial resources, the well costs were expensed in Q3 2016. Further, the results of the Rossignol well was estimated by operations personnel to have condemned about 10% of the acreage on blocks 528 and 529. As such, \$1 million of leasehold costs on each block was expensed in Q3 2016. KPMG notes that that the 10% was determined based on the approximate acreage of blocks 528 and 529 which would be affected by the Rossignol well. Further, KPMG notes that exploration and appraisal activities are ongoing to support the remaining carrying values.

Consideration of possible impairments to surrounding areas: KPMG notes that per the Q3 2016 Domestic Exploration Exposure report, there are no wells that are in suspense on blocks 527 and 529 and no wells currently being drilled on block 529. KPMG notes that an exploration well (Pelican well) was spud on September 27, 2016 on block 527 and operations is expected to be completed in November 2016. KPMG notes that this does not appear unreasonable as the well had just spud at the end of Q3 2016 and assessment of the results was ongoing. Further, KPMG notes there is \$8.9 million of NPLH on the 528 block. KPMG inquired of International accounting, and note that the portion of the NPLH costs was not expensed as operations estimated only 10% of the lease cost to be expensed. This is due to the fact that the well encountered hydrocarbons in such a small quantity that indicated the downdip of the well (10% of the acreage) would not encounter commercial hydrocarbons. However, the updip location of the well was not condemned by the results of the Rossignol well, and as such, there is still NPLH costs associated with the well. As such, KPMG p/f/r.

- C. Tubarao Tigre #1- Mozambique (AFE 2095819)- \$33.4 million
- Tubarao Tigre #2- Mozambique (AFE 2102475)- \$20.7 million

Background: The Tubarao Tigre wells #1 and #2 are located in Mozambique. The Company began drilling in the offshore area of Mozambique (Rovuma Basin) in 2010. The Company now operates both onshore and offshore wells and is developing an onshore LNG plant. The Tubarao block was first spud in Q4 2010, with Tubaao Tigre #1 first drilling in May 2014 and Tubaao Tigre #2 first drilling January 2015. In Q1 2015, the Company submitted an appraisal program to the Mozambique

government that included the reprocessing of seismic data that was expected to be completed in Q1 2017. However, in Q3 2016 the Company determined the wells should be expensed as a result of the Company deciding to delay drilling in the area.

Review Procedures: KPMG obtained the AFE information for AFE 2095819 (Tubarao Tigre #1) and notes that the AFE was approved by AL Walker (Chairman, President, and CEO) on 2/10/2014 for \$79 million gross (42.9% WI, \$33.9 million net). Further, KPMG obtained the AFE information for AFE 2102475 (Tubarao Tigre #2) and notes that the supplemental AFE was approved by AL Walker (Chairman, President, and CEO) on 9/17/2014 for \$66.5 million gross (31.1% WI, \$20.7 million net). KPMG then obtained the journal entry support for the debit to Dry Hole Expense and credit to AUC Exploratory IDC for \$33.4 million and \$20.7 million and Exploration Dry Hole for \$33.4 million and \$20.7 million evidencing that the entire AFE was written off.

KPMG obtained email support dated 10/07/2016 between Jordan Hixson (Global LNG Portfolio Development Director- Mozambique), Matthew Peloquin (Planning, Reserves & Economic Manager- Reserves and Planning Mozambique), Darrell Havill (Manager- International Accounting), and Louis Williams (Assistant Controller- Expenditure, International & Risk Accounting), confirming the discussion of Orca and Tubarao Tigre wells as dry holed. KPMG notes that in Q3 2016, in response to the global commodity price decline along with the complexity of the wells, the Company has decided to delay additional drilling activities for both the Tubarao Tigre #1 and #2 wells for several years, and possibly more depending on market condition activity. The Company noted that although the development scenarios will continue to be considered for the overall Mozambique project, the field no longer met the thresholds to continue to capitalize the costs. Therefore, the well costs were expensed as dry hole in Q3 2016.

Consideration of possible impairments to surrounding areas: KPMG notes that per the Q3 2016 Domestic Exploration Exposure report, the Golfinho area in Mozambique had approximately \$63.7 million currently in suspense. KPMG notes this did not seem unreasonable as the Development Plan for the area was submitted to the Partners for their approval and as of Q3 2016 was being finalized for submission to the government for approval. KPMG notes that further discussion and analysis over the suspended wells amounts can be seen at **Q3.GG.13**. Additionally, KPMG notes that there are other wells in suspense in the Prosperidade area in Mozambique, however, as these amounts total an immaterial \$2 million, KPMG p/f/r.

D. Orca #4- Mozambique (AFE 2099762)- \$37.6 million

Background: The Orca #4 well is located in Mozambique. The Company began drilling in the offshore area of Mozambique (Rovuma Basin) in 2010. The Company now operates both onshore and offshore wells and is developing an onshore LNG plant. In Q4 2014, the Orca #4 well was drilled and the well was declared successful. In Q1 2016, the Government of Mozambique approved the Orca Discovery area and in Q3 2016 geologic modeling was completed. In Q3 2016, the well was determined to be non-commercial and the costs were expensed as a dry hole.

Review procedures: KPMG obtained the AFE information for AFE 2093762 and notes that the AFE was approved by AL Walker (Chairman, President, and CEO) on 12/10/2014 for \$106.3 million gross (31.1% WI, \$33.1 million net). KPMG then obtained the journal

entry support for the debit to Dry Hole Expense and credit to AUC Exploratory IDC for \$37.6 million and Exploration Dry Hole for \$37.6 million evidencing that the entire AFE was written off.

KPMG obtained email support dated 10/07/2016 between Jordan Hixson (Global LNG Portfolio Development Director- Mozambique), Matthew Peloquin (Planning, Reserves & Economic Manager- Reserves and Planning Mozambique), Darrell Havill (Manager- International Accounting), and Louis Williams (Assistant Controller- Expenditure, International & Risk Accounting), confirming the discussion of Orca and Tubarao Tigre wells as dry holed. KPMG notes that in Q3 2016, the geologic mapping was completed and it was determined that the #4 well was not associated with the first three Orca wells. As such, the well was deemed to be non-commercial and the field no longer met the thresholds to continue to capitalize the costs. Therefore, the well costs were expensed as dry hole in Q3 2016. In discussions with Management, KPMG notes that the Orca #4 well should have been expensed in prior periods, and as such was included in KPMG's SURM as seen at **Q3.7.1.2.4.10**. Please see the SURM for additional detail on the impact to the financials, including KPMG's considerations regarding control implications.

Consideration of possible impairments to surrounding areas: KPMG notes that per the Mozambique Exploration Summary, there are three other wells in the Orca area, however, it was determined that the first three Orca wells are geologically separate from Orca well #4, and as such, those wells do not need to be expensed with Orca well #4. Additionally, per the Q3 2016 Domestic Exploration Exposure report, the other three Orca wells have an immaterial \$5 million in progress, as such, KPMG p/f/r. Further, as noted above, the Golfinho area in Mozambique has about \$63.7 million currently in suspense. KPMG notes that further discussion and analysis over the suspended wells amounts can be seen at **Q3.GG.13**. Additionally, KPMG notes that there are other wells in suspense in the Prosperidade area in Mozambique, however, as these amounts total an immaterial \$2 million, KPMG p/f/r.

4. KPMG reviewed the Q3 2016 Exploration questionnaires as well as the Asset Impairment Issues matrices (which are based on the quarterly impairment questionnaires and quarterly impairment and exploration meetings between operations and accountings). KPMG discusses the outcome of these questionnaires and impairment meetings in detail in our impairment testwork at **Q3.GG.25-28**. KPMG noted no additional indicators of dry holes that would impact the dry hole expense balance for QTD/YTD 9/30/2016 beyond those already included in the Dry Hole Expense schedule seen at **Q3.GG.40**. KPMG notes that the impairment questionnaires specifically reference unsuccessful development activities (i.e. dry holes) and ask for Operations' response in relation to any new dry holes that may have occurred during the quarter. KPMG also performed procedures over the Company's suspended exploratory AUC balance at **Q3.GG.10-13**. This testwork includes verifying justifications for continued suspense of material plays.
5. Per FASB ASC 932-360-40-10 and Company policy, the Company follows up with exploratory wells and updates the status of any wells that were determined to have any disposition of costs at 9/30/2016 that should be made prior to the issuance of the 10-Q. KPMG performed inquiries with management regarding their follow up procedures as seen in the memo at **Q3.GG.35**.

kpmg

Dry Hole Expense

Conclusion:

Based on the results of the procedures performed above, KPMG notes nothing that would cause us to believe that the dry hole expense for the QTD 9/30/2016 is materially misstated.

Exhibit 125



U.S. Securities and Exchange Commission

SEC Staff Accounting Bulletin: No. 99 – Materiality

SECURITIES AND EXCHANGE COMMISSION
 17 CFR Part 211
 [Release No. SAB 99]
 Staff Accounting Bulletin No. 99

AGENCY: Securities and Exchange Commission

ACTION: Publication of Staff Accounting Bulletin

SUMMARY: This staff accounting bulletin expresses the views of the staff that exclusive reliance on certain quantitative benchmarks to assess materiality in preparing financial statements and performing audits of those financial statements is inappropriate; misstatements are not immaterial simply because they fall beneath a numerical threshold.

DATE: August 12, 1999

FOR FURTHER INFORMATION CONTACT: W. Scott Bayless, Associate Chief Accountant, or Robert E. Burns, Chief Counsel, Office of the Chief Accountant (202-942-4400), or David R. Fredrickson, Office of General Counsel (202-942-0900), Securities and Exchange Commission, 450 Fifth Street, N.W., Washington, D.C. 20549-1103; electronic addresses: BaylessWS@sec.gov; BurnsR@sec.gov; FredricksonD@sec.gov.

SUPPLEMENTARY INFORMATION: The statements in the staff accounting bulletins are not rules or interpretations of the Commission, nor are they published as bearing the Commission's official approval. They represent interpretations and practices followed by the Division of Corporation Finance and the Office of the Chief Accountant in administering the disclosure requirements of the Federal securities laws.

Jonathan G. Katz

Secretary

Date: August 12, 1999

Part 211 - (AMEND) Accordingly, Part 211 of Title 17 of the Code of Federal Regulations is amended by adding Staff Accounting Bulletin No. 99 to the table found in Subpart B.

STAFF ACCOUNTING BULLETIN NO. 99

The staff hereby adds Section M to Topic 1 of the Staff Accounting Bulletin Series. Section M, entitled "Materiality," provides guidance in applying materiality thresholds to the preparation of financial statements filed with the Commission and the performance of audits of those financial statements.

STAFF ACCOUNTING BULLETINS

TOPIC 1: FINANCIAL STATEMENTS

* * * *

M. Materiality

1. Assessing Materiality

Facts: During the course of preparing or auditing year-end financial statements, financial management or the registrant's independent auditor becomes aware of misstatements in a registrant's financial statements. When combined, the misstatements result in a 4% overstatement of net income and a \$.02 (4%) overstatement of earnings per share. Because no item in the registrant's consolidated financial statements is misstated by more than 5%, management and the independent auditor conclude that the deviation from generally accepted accounting principles ("GAAP") is immaterial and that the accounting is permissible.¹

Question: Each Statement of Financial Accounting Standards adopted by the Financial Accounting Standards Board ("FASB") states, "The provisions of this Statement need not be applied to immaterial items." In the staff's view, may a registrant or the auditor of its financial statements assume the immateriality of items that fall below a percentage threshold set by management or the auditor to determine whether amounts and items are material to the financial statements?

Interpretive Response: No. The staff is aware that certain registrants, over time, have developed quantitative thresholds as "rules of thumb" to assist in the preparation of their financial statements, and that auditors also have used these thresholds in their evaluation of whether items might be considered material to users of a registrant's financial statements. One rule of thumb in particular suggests that the misstatement or omission² of an item that falls under a 5% threshold is not material in the absence of particularly egregious circumstances, such as self-dealing or misappropriation by senior management. The staff reminds registrants and the auditors of their financial statements that exclusive reliance on this or any percentage or numerical threshold has no basis in the accounting literature or the law.

The use of a percentage as a numerical threshold, such as 5%, may provide the basis for a preliminary assumption that – without considering all relevant circumstances – a deviation of less than the specified percentage with respect to a particular item on the registrant's financial statements is unlikely to be material. The staff has no objection to such a "rule of thumb" as an initial step in assessing materiality. But quantifying, in percentage terms, the magnitude of a misstatement is only the beginning of an analysis of materiality; it cannot appropriately be used as a substitute for a full analysis of all relevant considerations. Materiality concerns the significance of an item to users of a registrant's financial statements. A matter is "material" if there is a substantial likelihood that a reasonable person would consider it important. In its Statement of Financial Accounting Concepts No. 2, the FASB stated the essence of the concept of materiality as follows:

The omission or misstatement of an item in a financial report is material if, in the light of surrounding circumstances, the magnitude of the item is such that it is probable that the judgment of a reasonable person relying upon the report would have been changed or influenced by the inclusion or correction of the item.³

This formulation in the accounting literature is in substance identical to the formulation used by the courts in interpreting the federal securities laws. The Supreme Court has held that a fact is material if there is –

a substantial likelihood that the . . . fact would have been viewed by the reasonable investor as having significantly altered the "total mix" of information made available.⁴

Under the governing principles, an assessment of materiality requires that one views the facts in the context of the "surrounding circumstances," as the accounting literature puts it, or the "total mix" of information, in the words of the Supreme Court. In the context of a misstatement of a financial statement item, while the "total mix" includes the size in numerical or percentage terms of the misstatement, it also includes the factual context in which the user of financial statements would view the financial statement item. The shorthand in the accounting and auditing literature for this analysis is that financial management and the auditor must consider both "quantitative" and "qualitative" factors in assessing an item's materiality.⁵ Court decisions, Commission rules and enforcement actions, and accounting and auditing literature⁶ have all considered "qualitative" factors in various contexts.

The FASB has long emphasized that materiality cannot be reduced to a numerical formula. In its Concepts Statement No. 2, the FASB noted that some had urged it to promulgate quantitative materiality guides for use in a variety of situations. The FASB rejected such an approach as representing only a "minority view," stating –

The predominant view is that materiality judgments can properly be made only by those who have all the facts. The Board's present position is that no general standards of materiality could be formulated to take into account all the considerations that enter into an experienced human judgment.⁷

The FASB noted that, in certain limited circumstances, the Commission and other authoritative bodies had issued quantitative materiality guidance, citing as examples guidelines ranging from one to ten percent with respect to a variety of disclosures.⁸ And it took account of contradictory studies, one showing a lack of uniformity among auditors on materiality judgments, and another suggesting widespread use of a "rule of thumb" of five to ten percent of net income.⁹ The FASB also considered whether an evaluation of materiality could be based solely on anticipating the market's reaction to accounting information.¹⁰

The FASB rejected a formulaic approach to discharging "the onerous duty of making materiality decisions"¹¹ in favor of an approach that takes into account all the relevant considerations. In so doing, it made clear that –

[M]agnitude by itself, without regard to the nature of the item and the circumstances in which the judgment has to be made, will not generally be a sufficient basis for a materiality judgment.¹²

Evaluation of materiality requires a registrant and its auditor to consider *all* the relevant circumstances, and the staff believes that there are numerous circumstances in which misstatements below 5% could well be material. Qualitative factors may cause misstatements of quantitatively small amounts to be material; as stated in the auditing literature:

As a result of the interaction of quantitative and qualitative considerations in materiality judgments, misstatements of relatively small amounts that come to the auditor's attention could have a material effect on the financial statements.¹³

Among the considerations that may well render material a quantitatively small misstatement of a financial statement item are –

- whether the misstatement arises from an item capable of precise measurement or whether it arises from an estimate and, if so, the degree of imprecision inherent in the estimate¹⁴
- whether the misstatement masks a change in earnings or other trends
- whether the misstatement hides a failure to meet analysts' consensus expectations for the enterprise
- whether the misstatement changes a loss into income or vice versa
- whether the misstatement concerns a segment or other portion of the registrant's business that has been identified as playing a significant role in the registrant's operations or profitability
- whether the misstatement affects the registrant's compliance with regulatory requirements
- whether the misstatement affects the registrant's compliance with loan covenants or other contractual requirements
- whether the misstatement has the effect of increasing management's compensation – for example, by satisfying requirements for the award of bonuses or other forms of incentive compensation
- whether the misstatement involves concealment of an unlawful transaction.

This is not an exhaustive list of the circumstances that may affect the materiality of a quantitatively small misstatement.¹⁵ Among other factors, the demonstrated volatility of the price of a registrant's securities in response to certain types of disclosures may provide guidance as to whether investors regard quantitatively small misstatements as material. Consideration of potential market reaction to disclosure of a misstatement is by itself "too blunt an instrument to be depended on" in considering whether a fact is material.¹⁶ When, however, management or the independent auditor expects (based, for example, on a pattern of market performance) that a known misstatement may result in a significant positive or negative market reaction, that expected reaction should be taken into account when considering whether a misstatement is material.¹⁷

For the reasons noted above, the staff believes that a registrant and the auditors of its financial statements should not assume that even small intentional misstatements in financial statements, for example those pursuant to actions to "manage" earnings, are immaterial.¹⁸ While the intent of management does not render a misstatement material, it may provide significant evidence of materiality. The evidence may be particularly compelling where management has intentionally misstated items in the financial statements to "manage" reported earnings. In that instance, it presumably has done so believing that the resulting amounts and trends would be significant to users of the registrant's financial statements.¹⁹ The staff believes that investors generally would regard as significant a management practice to over- or under-state earnings up to an amount just short of a percentage threshold in order to "manage" earnings. Investors presumably also would regard as significant an accounting practice that, in essence, rendered all earnings figures subject to a management-directed margin of misstatement.

The materiality of a misstatement may turn on where it appears in the financial statements. For example, a misstatement may involve a segment

of the registrant's operations. In that instance, in assessing materiality of a misstatement to the financial statements taken as a whole, registrants and their auditors should consider not only the size of the misstatement but also the significance of the segment information to the financial statements taken as a whole.²⁰ "A misstatement of the revenue and operating profit of a relatively small segment that is represented by management to be important to the future profitability of the entity"²¹ is more likely to be material to investors than a misstatement in a segment that management has not identified as especially important. In assessing the materiality of misstatements in segment information - as with materiality generally - situations may arise in practice where the auditor will conclude that a matter relating to segment information is qualitatively material even though, in his or her judgment, it is quantitatively immaterial to the financial statements taken as a whole.²²

Aggregating and Netting Misstatements

In determining whether multiple misstatements cause the financial statements to be materially misstated, registrants and the auditors of their financial statements should consider each misstatement separately and the aggregate effect of all misstatements.²³ A registrant and its auditor should evaluate misstatements in light of quantitative and qualitative factors and "consider whether, in relation to individual line item amounts, subtotals, or totals in the financial statements, they materially misstate the financial statements taken as a whole."²⁴ This requires consideration of -

the significance of an item to a particular entity (for example, inventories to a manufacturing company), the pervasiveness of the misstatement (such as whether it affects the presentation of numerous financial statement items), and the effect of the misstatement on the financial statements taken as a whole²⁵

Registrants and their auditors first should consider whether each misstatement is material, irrespective of its effect when combined with other misstatements. The literature notes that the analysis should consider whether the misstatement of "individual amounts" causes a material misstatement of the financial statements taken as a whole. As with materiality generally, this analysis requires consideration of both quantitative and qualitative factors.

If the misstatement of an individual amount causes the financial statements as a whole to be materially misstated, that effect cannot be eliminated by other misstatements whose effect may be to diminish the impact of the misstatement on other financial statement items. To take an obvious example, if a registrant's revenues are a material financial statement item and if they are materially overstated, the financial statements taken as a whole will be materially misleading even if the effect on earnings is completely offset by an equivalent overstatement of expenses.

Even though a misstatement of an individual amount may not cause the financial statements taken as a whole to be materially misstated, it may nonetheless, when aggregated with other misstatements, render the financial statements taken as a whole to be materially misleading.

Registrants and the auditors of their financial statements accordingly should consider the effect of the misstatement on subtotals or totals. The auditor should aggregate all misstatements that affect each subtotal or total and consider whether the misstatements in the aggregate affect the subtotal or total in a way that causes the registrant's financial statements taken as a whole to be materially misleading.²⁶

The staff believes that, in considering the aggregate effect of multiple misstatements on a subtotal or total, registrants and the auditors of their financial statements should exercise particular care when considering whether to offset (or the appropriateness of offsetting) a misstatement of an estimated amount with a misstatement of an item capable of precise measurement. As noted above, assessments of materiality should never be purely mechanical; given the imprecision inherent in estimates, there is by definition a corresponding imprecision in the aggregation of misstatements involving estimates with those that do not involve an estimate.

Registrants and auditors also should consider the effect of misstatements from prior periods on the current financial statements. For example, the auditing literature states,

Matters underlying adjustments proposed by the auditor but not recorded by the entity could potentially cause future financial statements to be materially misstated, even though the auditor has concluded that the adjustments are not material to the current financial statements.²⁷

This may be particularly the case where immaterial misstatements recur in several years and the cumulative effect becomes material in the current year.

2. Immaterial Misstatements That are Intentional

Facts: A registrant's management intentionally has made adjustments to various financial statement items in a manner inconsistent with GAAP. In each accounting period in which such actions were taken, none of the individual adjustments is by itself material, nor is the aggregate effect on the financial statements taken as a whole material for the period. The registrant's earnings "management" has been effected at the direction or acquiescence of management in the belief that any deviations from GAAP have been immaterial and that accordingly the accounting is permissible.

Question: In the staff's view, may a registrant make intentional immaterial misstatements in its financial statements?

Interpretive Response: No. In certain circumstances, intentional immaterial misstatements are unlawful.

Considerations of the Books and Records Provisions Under the Exchange Act

Even if misstatements are immaterial,²⁸ registrants must comply with Sections 13(b)(2) - (7) of the Securities Exchange Act of 1934 (the "Exchange Act").²⁹ Under these provisions, each registrant with securities registered pursuant to Section 12 of the Exchange Act,³⁰ or required to file reports pursuant to Section 15(d),³¹ must make and keep books, records, and accounts, which, in reasonable detail, accurately and fairly reflect the transactions and dispositions of assets of the registrant and must maintain internal accounting controls that are sufficient to provide reasonable assurances that, among other things, transactions are recorded as necessary to permit the preparation of financial statements in conformity with GAAP.³² In this context, determinations of what constitutes "reasonable assurance" and "reasonable detail" are based not on a "materiality" analysis but on the level of detail and degree of assurance that would satisfy prudent officials in the conduct of their own affairs.³³ Accordingly, failure to record accurately immaterial items, in some instances, may result in violations of the securities laws.

The staff recognizes that there is limited authoritative guidance³⁴ regarding the "reasonableness" standard in Section 13(b)(2) of the Exchange Act. A principal statement of the Commission's policy in this area is set forth in an address given in 1981 by then Chairman Harold M. Williams.³⁵ In his address, Chairman Williams noted that, like materiality, "reasonableness" is not an "absolute standard of exactitude for corporate records."³⁶ Unlike materiality, however, "reasonableness" is not solely a measure of the significance of a financial statement item to investors. "Reasonableness," in this context, reflects a judgment as to whether an issuer's failure to correct a known misstatement implicates the purposes underlying the accounting provisions of Sections 13(b)(2) - (7) of the Exchange Act.³⁷

In assessing whether a misstatement results in a violation of a registrant's obligation to keep books and records that are accurate "in reasonable detail," registrants and their auditors should consider, in addition to the factors discussed above concerning an evaluation of a misstatement's potential materiality, the factors set forth below.

- **The significance of the misstatement.** Though the staff does not believe that registrants need to make finely calibrated determinations of significance with respect to immaterial items, plainly it is "reasonable" to treat misstatements whose effects are clearly inconsequential differently than more significant ones.
- **How the misstatement arose.** It is unlikely that it is ever "reasonable" for registrants to record misstatements or not to correct known misstatements – even immaterial ones – as part of an ongoing effort directed by or known to senior management for the purposes of "managing" earnings. On the other hand, insignificant misstatements that arise from the operation of systems or recurring processes in the normal course of business generally will not cause a registrant's books to be inaccurate "in reasonable detail."³⁸
- **The cost of correcting the misstatement.** The books and records provisions of the Exchange Act do not require registrants to make major expenditures to correct small misstatements.³⁹ Conversely, where there is little cost or delay involved in correcting a misstatement, failing to do so is unlikely to be "reasonable."
- **The clarity of authoritative accounting guidance with respect to the misstatement.** Where reasonable minds may differ about the appropriate accounting treatment of a financial statement item, a failure to correct it may not render the registrant's financial statements inaccurate "in reasonable detail." Where, however, there is little ground for reasonable disagreement, the case for leaving a misstatement uncorrected is correspondingly weaker.

There may be other indicators of "reasonableness" that registrants and their auditors may ordinarily consider. Because the judgment is not mechanical, the staff will be inclined to continue to defer to judgments that "allow a business, acting in good faith, to comply with the Act's accounting provisions in an innovative and cost-effective way."⁴⁰

The Auditor's Response to Intentional Misstatements

Section 10A(b) of the Exchange Act requires auditors to take certain actions upon discovery of an "illegal act."⁴¹ The statute specifies that these obligations are triggered "whether or not [the illegal acts are] perceived to have a material effect on the financial statements of the issuer" Among other things, Section 10A(b)(1) requires the auditor to inform the

appropriate level of management of an illegal act (unless clearly inconsequential) and assure that the registrant's audit committee is "adequately informed" with respect to the illegal act.

As noted, an intentional misstatement of immaterial items in a registrant's financial statements may violate Section 13(b)(2) of the Exchange Act and thus be an illegal act. When such a violation occurs, an auditor must take steps to see that the registrant's audit committee is "adequately informed" about the illegal act. Because Section 10A(b)(1) is triggered regardless of whether an illegal act has a material effect on the registrant's financial statements, where the illegal act consists of a misstatement in the registrant's financial statements, the auditor will be required to report that illegal act to the audit committee irrespective of any "netting" of the misstatements with other financial statement items.

The requirements of Section 10A echo the auditing literature. See, for example, Statement on Auditing Standards No. ("SAS") 54, "Illegal Acts by Clients," and SAS 82, "Consideration of Fraud in a Financial Statement Audit." Pursuant to paragraph 38 of SAS 82, if the auditor determines there is evidence that fraud may exist, the auditor must discuss the matter with the appropriate level of management. The auditor must report directly to the audit committee fraud involving senior management and fraud that causes a material misstatement of the financial statements. Paragraph 4 of SAS 82 states that "misstatements arising from fraudulent financial reporting are intentional misstatements or omissions of amounts or disclosures in financial statements to deceive financial statement users."⁴² SAS 82 further states that fraudulent financial reporting may involve falsification or alteration of accounting records; misrepresenting or omitting events, transactions or other information in the financial statements; and the intentional misapplication of accounting principles relating to amounts, classifications, the manner of presentation, or disclosures in the financial statements.⁴³ The clear implication of SAS 82 is that immaterial misstatements may be fraudulent financial reporting. ⁴⁴

Auditors that learn of intentional misstatements may also be required to (1) re-evaluate the degree of audit risk involved in the audit engagement, (2) determine whether to revise the nature, timing, and extent of audit procedures accordingly, and (3) consider whether to resign.⁴⁵

Intentional misstatements also may signal the existence of reportable conditions or material weaknesses in the registrant's system of internal accounting control designed to detect and deter improper accounting and financial reporting.⁴⁶ As stated by the National Commission on Fraudulent Financial Reporting, also known as the Treadway Commission, in its 1987 report,

The tone set by top management - the corporate environment or culture within which financial reporting occurs - is the most important factor contributing to the integrity of the financial reporting process. Notwithstanding an impressive set of written rules and procedures, if the tone set by management is lax, fraudulent financial reporting is more likely to occur.⁴⁷

An auditor is required to report to a registrant's audit committee any reportable conditions or material weaknesses in a registrant's system of internal accounting control that the auditor discovers in the course of the examination of the registrant's financial statements. ⁴⁸

GAAP Precedence Over Industry Practice

Some have argued to the staff that registrants should be permitted to follow an industry accounting practice even though that practice is inconsistent with authoritative accounting literature. This situation might occur if a practice is developed when there are few transactions and the accounting results are clearly inconsequential, and that practice never changes despite a subsequent growth in the number or materiality of such transactions. The staff disagrees with this argument. Authoritative literature takes precedence over industry practice that is contrary to GAAP.⁴⁹

General Comments

This SAB is not intended to change current law or guidance in the accounting or auditing literature.⁵⁰ This SAB and the authoritative accounting literature cannot specifically address all of the novel and complex business transactions and events that may occur. Accordingly, registrants may account for, and make disclosures about, these transactions and events based on analogies to similar situations or other factors. The staff may not, however, always be persuaded that a registrant's determination is the most appropriate under the circumstances. When disagreements occur after a transaction or an event has been reported, the consequences may be severe for registrants, auditors, and, most importantly, the users of financial statements who have a right to expect consistent accounting and reporting for, and disclosure of, similar transactions and events. The staff, therefore, encourages registrants and auditors to discuss on a timely basis with the staff proposed accounting treatments for, or disclosures about, transactions or events that are not specifically covered by the existing accounting literature.

Footnotes

- ¹** American Institute of Certified Public Accountants ("AICPA"), Codification of Statements on Auditing Standards ("AU") § 312, "Audit Risk and Materiality in Conducting an Audit," states that the auditor should consider audit risk and materiality both in (a) planning and setting the scope for the audit and (b) evaluating whether the financial statements taken as a whole are fairly presented in all material respects in conformity with generally accepted accounting principles. The purpose of this Staff Accounting Bulletin ("SAB") is to provide guidance to financial management and independent auditors with respect to the evaluation of the materiality of misstatements that are identified in the audit process or preparation of the financial statements (i.e., (b) above). This SAB is not intended to provide definitive guidance for assessing "materiality" in other contexts, such as evaluations of auditor independence, as other factors may apply. There may be other rules that address financial presentation. See, e.g., Rule 2a-4, 17 CFR 270.2a-4, under the Investment Company Act of 1940.
- ²** As used in this SAB, "misstatement" or "omission" refers to a financial statement assertion that would not be in conformity with GAAP.
- ³** FASB, Statement of Financial Accounting Concepts No. 2, Qualitative Characteristics of Accounting Information ("Concepts Statement No. 2"), 132 (1980). See also Concepts Statement No. 2, Glossary of Terms - Materiality.
- ⁴** TSC Industries v. Northway, Inc., 426 U.S. 438, 449 (1976). See also Basic, Inc. v. Levinson, 485 U.S. 224 (1988). As the Supreme Court has noted, determinations of materiality require "delicate assessments of the inferences a 'reasonable shareholder' would draw from a given set of facts and the significance of those inferences to him . . ." TSC Industries, 426 U.S. at 450.

- 5 See, e.g., Concepts Statement No. 2, 123-124; AU § 312.10 (" . . . materiality judgments are made in light of surrounding circumstances and necessarily involve both quantitative and qualitative considerations."); AU § 312.34 ("Qualitative considerations also influence the auditor in reaching a conclusion as to whether misstatements are material."). As used in the accounting literature and in this SAB, "qualitative" materiality refers to the surrounding circumstances that inform an investor's evaluation of financial statement entries. Whether events may be material to investors for non-financial reasons is a matter not addressed by this SAB.
- 6 See, e.g., Rule 1-02(o) of Regulation S-X, 17 CFR 210.1-02(o), Rule 405 of Regulation C, 17 CFR 230.405, and Rule 12b-2, 17 CFR 240.12b-2; AU §§ 312.10 - .11, 317.13, 411.04 n. 1, and 508.36; In re Kidder Peabody Securities Litigation, 10 F. Supp. 2d 398 (S.D.N.Y. 1998); Parnes v. Gateway 2000, Inc., 122 F.3d 539 (8th Cir. 1997); In re Westinghouse Securities Litigation, 90 F.3d 696 (3d Cir. 1996); In the Matter of W.R. Grace & Co., Accounting and Auditing Enforcement Release No. ("AAER") 1140 (June 30, 1999); In the Matter of Eugene Gaughan, AAER 1141 (June 30, 1999); In the Matter of Thomas Scanlon, AAER 1142 (June 30, 1999); and In re Sensormatic Electronics Corporation, Sec. Act Rel. No. 7518 (March 25, 1998).
- 7 Concepts Statement No. 2, 131 (1980).
- 8 Concepts Statement No. 2, 131 and 166.
- 9 Concepts Statement No. 2, 167.
- 10 Concepts Statement No. 2, 168-69.
- 11 Concepts Statement No. 2, 170.
- 12 Concepts Statement No. 2, 125.
- 13 AU § 312.11.
- 14 As stated in Concepts Statement No. 2, 130:
Another factor in materiality judgments is the degree of precision that is attainable in estimating the judgment item. The amount of deviation that is considered immaterial may increase as the attainable degree of precision decreases. For example, accounts payable usually can be estimated more accurately than can contingent liabilities arising from litigation or threats of it, and a deviation considered to be material in the first case may be quite trivial in the second. This SAB is not intended to change current law or guidance in the accounting literature regarding accounting estimates. See, e.g., Accounting Principles Board Opinion No. 20, Accounting Changes 10, 11, 31-33 (July 1971).
- 15 The staff understands that the Big Five Audit Materiality Task Force ("Task Force") was convened in March of 1998 and has made recommendations to the Auditing Standards Board including suggestions regarding communications with audit committees about unadjusted misstatements. See generally Big Five Audit Materiality Task Force, "Materiality in a Financial Statement Audit – Considering Qualitative Factors When Evaluating Audit Findings" (August 1998). The Task Force memorandum is available at www.aicpa.org.
- 16 See Concepts Statement No. 2, 169.
- 17 If management does not expect a significant market reaction, a misstatement still may be material and should be evaluated under the criteria discussed in this SAB.
- 18 Intentional management of earnings and intentional misstatements, as used in this SAB, do not include insignificant errors and omissions that may occur in systems and recurring processes in the normal course of business. See notes 38 and 50 infra.

19 Assessments of materiality should occur not only at year-end, but also during the preparation of each quarterly or interim financial statement. See, e.g., In the Matter of Venator Group, Inc., AAER 1049 (June 29, 1998).

20 See, e.g., In the Matter of W.R. Grace & Co., AAER 1140 (June 30, 1999).

21 AUI § 326.33.

22 Id.

23 The auditing literature notes that the "concept of materiality recognizes that some matters, either individually or in the aggregate, are important for fair presentation of financial statements in conformity with generally accepted accounting principles." AU § 312.03. See also AU § 312.04.

24 AU § 312.34. Quantitative materiality assessments often are made by comparing adjustments to revenues, gross profit, pretax and net income, total assets, stockholders' equity, or individual line items in the financial statements. The particular items in the financial statements to be considered as a basis for the materiality determination depend on the proposed adjustment to be made and other factors, such as those identified in this SAB. For example, an adjustment to inventory that is immaterial to pretax income or net income may be material to the financial statements because it may affect a working capital ratio or cause the registrant to be in default of loan covenants.

25 AU § 508.36.

26 AU § 312.34

27 AU § 380.09.

28 FASB Statements of Financial Accounting Standards ("Standards" or "Statements") generally provide that "[t]he provisions of this Statement need not be applied to immaterial items." This SAB is consistent with that provision of the Statements. In theory, this language is subject to the interpretation that the registrant is free intentionally to set forth immaterial items in financial statements in a manner that plainly would be contrary to GAAP if the misstatement were material. The staff believes that the FASB did not intend this result.

29 15 U.S.C. §§ 78m(b)(2) - (7).

30 15 U.S.C. § 78l.

31 15 U.S.C. § 78o(d).

32 Criminal liability may be imposed if a person knowingly circumvents or knowingly fails to implement a system of internal accounting controls or knowingly falsifies books, records or accounts. 15 U.S.C. §§ 78m(4) and (5). See also Rule 13b2-1 under the Exchange Act, 17 CFR 240.13b2-1, which states, "No person shall, directly or indirectly, falsify or cause to be falsified, any book, record or account subject to Section 13(b)(2)(A) of the Securities Exchange Act."

33 15 U.S.C. § 78m(b)(7). The books and records provisions of section 13(b) of the Exchange Act originally were passed as part of the Foreign Corrupt Practices Act ("FCPA"). In the conference committee report regarding the 1988 amendments to the FCPA, the committee stated,

The conference committee adopted the prudent man qualification in order to clarify that the current standard does not connote an unrealistic degree of exactitude or precision. The concept of reasonableness of necessity contemplates the weighing of a number of relevant factors, including the costs of compliance.

Cong. Rec. H2116 (daily ed. April 20, 1988).

34 So far as the staff is aware, there is only one judicial decision that discusses Section 13(b)(2) of the Exchange Act in any detail, SEC v. World-Wide Coin Investments, Ltd., 567 F. Supp. 724 (N.D. Ga. 1983), and the courts generally have found that no private right of action exists under the accounting and books and records provisions of the Exchange Act. See e.g., Lamb v. Phillip Morris Inc., 915 F.2d 1024 (6th Cir. 1990) and JS Service Center Corporation v. General Electric Technical Services Company, 937 F. Supp. 216 (S.D.N.Y. 1996).

35 The Commission adopted the address as a formal statement of policy in Securities Exchange Act Release No. 17500 (January 29, 1981), 46 FR 11544 (February 9, 1981), 21 SEC Docket 1466 (February 10, 1981).

36 Id. at 46 FR 11546.

37 Id.

38 For example, the conference report regarding the 1988 amendments to the FCPA stated,

The Conferees intend to codify current Securities and Exchange Commission (SEC) enforcement policy that penalties not be imposed for insignificant or technical infractions or inadvertent conduct. The amendment adopted by the Conferees [Section 13(b)(4)] accomplishes this by providing that criminal penalties shall not be imposed for failing to comply with the FCPA's books and records or accounting provisions. This provision [Section 13(b)(5)] is meant to ensure that criminal penalties would be imposed where acts of commission or omission in keeping books or records or administering accounting controls have the purpose of falsifying books, records or accounts, or of circumventing the accounting controls set forth in the Act. This would include the deliberate falsification of books and records and other conduct calculated to evade the internal accounting controls requirement.

Cong. Rec. H2115 (daily ed. April 20, 1988).

39 As Chairman Williams noted with respect to the internal control provisions of the FCPA, "[t]housands of dollars ordinarily should not be spent conserving hundreds." 46 FR 11546.

40 Id., at 11547.

41 Section 10A(f) defines, for purposes of Section 10A, an "illegal act" as "an act or omission that violates any law, or any rule or regulation having the force of law." This is broader than the definition of an "illegal act" in AU § 317.02, which states, "Illegal acts by clients do not include personal misconduct by the entity's personnel unrelated to their business activities."

42 AU § 316.04. See also AU § 316.03. An unintentional illegal act triggers the same procedures and considerations by the auditor as a fraudulent misstatement if the illegal act has a direct and material effect on the financial statements. See AU §§ 110 n. 1, 316 n. 1, 317.05 and 317.07. Although distinguishing between intentional and unintentional misstatements is often difficult, the auditor must plan and perform the audit to obtain reasonable assurance that the financial statements are free of material misstatements in either case. See AU § 316 note 3.

43 AU § 316.04. Although the auditor is not required to plan or perform the audit to detect misstatements that are immaterial to the financial statements, SAS 82 requires the auditor to evaluate several fraud "risk factors" that may bring such misstatements to his or her attention. For example, an analysis of fraud risk factors under SAS 82 must include,

among other things, consideration of management's interest in maintaining or increasing the registrant's stock price or earnings trend through the use of unusually aggressive accounting practices, whether management has a practice of committing to analysts or others that it will achieve unduly aggressive or clearly unrealistic forecasts, and the existence of assets, liabilities, revenues, or expenses based on significant estimates that involve unusually subjective judgments or uncertainties. See AU §§ 316.17a and .17c.

- 44** AU §§ 316.34 and 316.35, in requiring the auditor to consider whether fraudulent misstatements are material, and in requiring differing responses depending on whether the misstatement is material, make clear that fraud can involve immaterial misstatements. Indeed, a misstatement can be "inconsequential" and still involve fraud.

Under SAS 82, assessing whether misstatements due to fraud are material to the financial statements is a "cumulative process" that should occur both during and at the completion of the audit. SAS 82 further states that this accumulation is primarily a "qualitative matter" based on the auditor's judgment. AU § 316.33. The staff believes that in making these assessments, management and auditors should refer to the discussion in Part 1 of this SAB.

- 45** AU §§ 316.34 and 316.36. Auditors should document their determinations in accordance with AU §§ 316.37, 319.57, 339, and other appropriate sections.

- 46** See, e.g., AU § 316.39.

- 47** Report of the National Commission on Fraudulent Financial Reporting at 32 (October 1987). See also Report and Recommendations of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees (February 8, 1999).

- 48** AU § 325.02. See also AU § 380.09, which, in discussing matters to be communicated by the auditor to the audit committee, states,

The auditor should inform the audit committee about adjustments arising from the audit that could, in his judgment, either individually or in the aggregate, have a significant effect on the entity's financial reporting process. For purposes of this section, an audit adjustment, whether or not recorded by the entity, is a proposed correction of the financial statements....

- 49** See AU § 411.05.

- 50** The FASB Discussion Memorandum, Criteria for Determining Materiality, states that the financial accounting and reporting process considers that "a great deal of the time might be spent during the accounting process considering insignificant matters If presentations of financial information are to be prepared economically on a timely basis and presented in a concise intelligible form, the concept of materiality is crucial." This SAB is not intended to require that misstatements arising from insignificant errors and omissions (individually and in the aggregate) arising from the normal recurring accounting close processes, such as a clerical error or an adjustment for a missed accounts payable invoice, always be corrected, even if the error is identified in the audit process and known to management. Management and the auditor would need to consider the various factors described elsewhere in this SAB in assessing whether such misstatements are material, need to be corrected to comply with the FCPA, or trigger procedures under Section 10A of the Exchange Act. Because this SAB does not change current law or guidance in the accounting or auditing literature, adherence to the principles described

in this SAB should not raise the costs associated with recordkeeping or with audits of financial statements.

<http://www.sec.gov/rules/acctrps/sab99.htm>

Exhibit 126



About the Codification (v 5.10)

Exhibit
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FASB Accounting Standards Codification®

About the Codification

(v 5.10)

About the Codification version numbers – About the Codification contains a version number indicating the degree of change within a particular version. Versions ending with ".0" represent substantive changes to the text, whereas versions ending with a number other than zero represent editorial or clerical corrections.

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FASB Accounting Standards Codification®

Welcome to the Financial Accounting Standards Board (FASB) *Accounting Standards Codification*® (Codification).

The FASB *Accounting Standards Codification*® is the source of authoritative generally accepted accounting principles (GAAP) recognized by the FASB to be applied to nongovernmental entities. The Codification is effective for interim and annual periods ending after September 15, 2009. All previous level (a)-(d) US GAAP standards issued by a standard setter are superseded. Level (a)–(d) US GAAP refers to the previous accounting hierarchy. All other accounting literature not included in the Codification will be considered nonauthoritative. See Codification Topic 105, Generally Accepted Accounting Principles, for additional details.

The Codification structure is significantly different from the structure of previous standards. This document provides information that will help in obtaining a good understanding of the Codification structure, content, and style.

Codification Research System

The *FASB Accounting Standards Codification®* Research System (Codification Research System) streamlines the research process. The Codification Research System has numerous features to assist subscribers with research.

The benefit of performing research using the Codification is that users can identify all related content in one location much more easily than researching the thousands of previous standards. The FASB suggests the following steps when conducting research:

1. Browse the topical structure and related tables of contents. Because all related content is organized topically, users should be able to identify most content by topical browsing. Based on direct feedback, more than ninety percent of users responded that they know the topic that they need to research.
2. Subscribers should use the text search feature only for very specific items (for example, guidance about inducements). Text search is based on specific language. Deviations from a selected search expression will lead to certain relevant content being excluded from search results. The Codification Research System does incorporate certain tools to help overcome the issue, but searching will always be constrained.

Content Matters

Population of codified standards as of July 1, 2009

Standards issued by standard setters other than the SEC

The Codification includes all authoritative literature (defined as level (a)–(d) US GAAP of the previous US GAAP hierarchy) issued by a standard setter. It does not include standards for state and local governments. The source of the standards was the *as-amended* versions as provided by the standard setter. Therefore, the Codification does not identify documents that solely amend other standards. For example, FASB Statement No. 149, *Amendment of Statement 133 on Derivative Instruments and Hedging Activities*, is an amendment of FASB Statement No. 133, *Accounting for Derivative Instruments and Hedging Activities*, so the content of Statement 149 is included through the as-amended version of Statement 133.

As of July 1, 2009, the Codification was composed of the following literature issued by various standard setters:

1. Financial Accounting Standards Board (FASB)
 - a. Statements (FAS)
 - b. Interpretations (FIN)
 - c. Technical Bulletins (FTB)
 - d. Staff Positions (FSP)
 - e. Staff Implementation Guides (Q&A)
 - f. Statement No. 138 Examples.
2. Emerging Issues Task Force (EITF)
 - a. Abstracts
 - b. Topic D.
3. Derivative Implementation Group (DIG) Issues
4. Accounting Principles Board (APB) Opinions
5. Accounting Research Bulletins (ARB)
6. Accounting Interpretations (AIN)
7. American Institute of Certified Public Accountants (AICPA)
 - a. Statements of Position (SOP)
 - b. Audit and Accounting Guides (AAG)—only incremental accounting guidance
 - c. Practice Bulletins (PB), including the Notices to Practitioners elevated to Practice Bulletin status by Practice Bulletin 1
 - d. Technical Inquiry Service (TIS)—only for Software Revenue Recognition.

Standards issued by the SEC

To increase the utility of the Codification for public companies, portions of authoritative content issued by the SEC and selected SEC staff interpretations and administrative guidance have been included for reference in the Codification, such as:

1. Regulation S-X (SX)
2. Financial Reporting Releases (FRR)/Accounting Series Releases (ASR)
3. Interpretive Releases (IR)
4. SEC Staff guidance in:
 - a. Staff Accounting Bulletins (SAB)
 - b. EITF Topic D and SEC Staff Observer comments.

The section titled [Securities and Exchange Commission \(SEC\) Sections](#) provides technical information on how SEC content is presented.

The SEC Sections do not contain the entire population of SEC rules, regulations, interpretive releases, and staff guidance. For example, the Codification does not include all content related to matters outside the basic financial statements, such as Management's Discussion and Analysis (MD&A), or to auditing or independence matters.

Content in the SEC Sections is expected to change over time in accordance with the SEC's normal procedures for making changes to SEC rules, regulations, interpretive releases, and staff guidance. The SEC's normal update procedures are not changed by the inclusion of SEC content in the Codification, and, accordingly, there may be delays between the release of the SEC's changes and updates to the Codification.

The Codification does not replace or affect guidance issued by the SEC or its staff for public companies in their filings with the SEC. Furthermore, the content labeled as SEC staff guidance does not constitute rules or interpretations of the SEC, nor does such guidance bear official Commission approval.

If you find any discrepancies between the SEC content as presented in the Codification and the underlying SEC content, please use the content feedback feature of the online Codification Research System to submit your comments.

Cross-referencing between standards and Accounting Standards Updates and the Codification

The Codification includes a Cross Reference report that allows users to identify where previous standards reside in the Codification, or the standards contained in a specific location in the Codification. Similarly, the report displays a detailed list of all content included in the Codification together with the specific location(s) within the Codification.

1. If the Cross Reference report lists the source of the content, then the FASB deemed the content as authoritative material for purposes of the Codification.
2. If the Cross Reference report does not list the source of the content from existing authoritative literature, then the FASB deemed it as superseded or nonessential.
Although, in a limited number of cases, the source for authoritative content does not

appear because the FASB replaced the content with content from other standards.

For each piece of standards content used in the Codification, the Cross Reference report includes the following information:

1. *Standards.* Standard type, year (if applicable), number, and paragraph.
2. *Codification.* Topic, Subtopic, Section, and paragraph.

Grandfathered content excluded from the Codification as of July 1, 2009

General

The authoritative release of the Codification as of July 1, 2009, excludes grandfathered material. Users need to access the relevant standards for such grandfathered items. See Codification Section 105-10-70 for a discussion of grandfathered material.

Non-GAAP

The FASB concluded that the Codification represents authoritative US GAAP. Therefore, the Codification does not include guidance for non-GAAP matters such as:

1. Other Comprehensive Basis of Accounting (OCBOA)
2. Cash Basis
3. Income Tax Basis
4. Regulatory Accounting Principles (RAP).

Governmental accounting standards

The Codification does not include governmental accounting standards.

Structure and Style Matters

Classification codes

The FASB developed a hybrid classification system specifically for the Codification.

The following is the structure of the classification system:

XXX- YY-ZZ-PP where XXX = Topic, YY = Subtopic, ZZ = Section, PP = ParagraphIn
the case of SEC content, an “S” precedes the Section number.

Topical structure

Accounting Standards Codification Hierarchy

Topics

Topics represent a collection of related guidance. For example, Leases is a Topic. The Topics correlate very closely to standards issued by the International Accounting Standards Board (IASB).

The Topics reside in Areas which can be categorized as follows:

1. The General Principles Area (Topic Codes 105–199).
2. The Presentation Area (Topic Codes 205–299) addresses how information is presented in the financial statements.
3. The Assets, Liabilities, and Equity Areas (Topic Codes 305–399, 405–499, and 505–599, respectively) contain guidance about accounting for assets, liabilities, and equity (e.g., cash, accounts payable, additional paid-in capital).
4. The Revenue and Expenses Areas (Topic Codes 605–699 and 705–799, respectively) contain guidance about accounting for revenues, expenses, gains, and losses.
5. The Broad Transactions Area (Topic Codes 805–899) contains guidance about various financial statement accounts and its Topics are generally event or transaction-oriented (for example, business combinations, derivatives, nonmonetary transactions).
6. The Industry Area (Topic Codes 905–999) contains guidance about specific industries or types of activity.

Industry and Broad Transaction Topics

The following approach was applied for placing content into the Codification Topics:

1. First filter—Industry content. If a piece of content related solely to a single industry, the content was placed in that particular industry.
2. Second filter—Broad transaction content. If a piece of content did not relate to a single industry and it related to a broad transaction, the content was placed in that broad transaction.
3. For all other content that did not meet the industry or broad transaction filters, the content was authored in a general Topic.

One of the goals of the Codification was to eliminate redundant content, which can result in user confusion and is difficult to maintain over time. Instead of proliferating redundancy by including general guidance in the Industry Topics, Industry Topics only contain incremental industry-specific guidance. The entities within the scope of the industry must follow the industry-specific guidance and all other relevant guidance contained in other Topics that does not conflict with the industry guidance.

To provide consistency, the Codification segregates Industry Topics into Subtopics that mirror the general Topic structure. This provides multiple ways to access the content—by Industry Topic or by general Topic.

Subtopics

Subtopics represent subsets of a Topic and are generally distinguished by type or by scope. For example, Operating Leases and Capital Leases are two Subtopics of the Leases Topic distinguished by type of lease. Each Topic contains an Overall Subtopic that generally represents the pervasive guidance for the Topic. Each additional Subtopic represents incremental or unique guidance not contained in the Overall Subtopic. In some cases, the Overall Subtopic represents overall guidance. In other cases, the Overall Subtopic may not contain overall guidance but, instead, may represent miscellaneous content that does not fit into another Subtopic.

Subtopics unique to a Topic use classification numbers between 00 and 99. In addition, Topics—primarily Industry Topics—may contain Subtopics that mirror the general Topics. For example, the general Receivables Topic is 310, the general Inventory Topic is 330, and the Agriculture Topic is 905. The Agriculture Topic may include Subtopics for Receivables, Inventory, and so forth. The Subtopic classification number is the classification number of the related Topic. In this case:

1. Agriculture—Receivables is 905-310.
2. Agriculture—Inventory is 905-330.

For additional details, see the discussion under the heading titled [Intersecting content](#).

Sections

Sections represent the nature of the content in a Subtopic such as Recognition, Measurement, Disclosure, and so forth. Every Subtopic uses the same Sections. If there is no content for a Section then the Section will not display. See the discussion under the heading titled [Joining and combining content](#) for a discussion of how you can join Sections for multiple Subtopics (such as the Disclosure Sections for all Subtopics within the Revenue Recognition Topic).

Similar to Topics, Sections correlate very closely with Sections of individual International Financial Reporting Standards.

The Sections of each Subtopic are as follows:

XXX-YY-ZZ where XXX = Topic, YY = Subtopic, ZZ = Section

XXX-YY-00	Status
XXX-YY-05	Overview and Background
XXX-YY-10	Objectives
XXX-YY-15	Scope and Scope Exceptions

XXX-YY-20	Glossary
XXX-YY-25	Recognition
XXX-YY-30	Initial Measurement
XXX-YY-35	Subsequent Measurement
XXX-YY-40	Derecognition
XXX-YY-45	Other Presentation Matters
XXX-YY-50	Disclosure
XXX-YY-55	Implementation Guidance and Illustrations
XXX-YY-60	Relationships
XXX-YY-65	Transition and Open Effective Date Information
XXX-YY-70	Grandfathered Guidance
XXX-YY-75	XBRL Elements The

following is a description of the Sections:

XXX- YY-00 Status

This Section includes references to the Accounting Standards Updates that affect the Subtopic. For example, the Section includes information similar to the following:

- 1. Paragraph 310-10-25-6 added by Accounting Standards Update 2010-003.
 - 2. Paragraph 360-10-35-7 modified by Accounting Standards Update 2009-002.
 - 3. Paragraph 810-10-50-3 superseded by Accounting Standards Update 2009-023.
- XXX-YY-05 Overview and Background

This Section provides a general overview and background on the Subtopic. It does not provide historical background of the standard setter, due process, or similar items. It may contain certain material generally considered useful to a user to understand the typical situations required by the standard. This Section does not summarize the requirements of the Subtopic.

XXX-YY-10 Objectives

When available, the Objectives Section states the high-level objectives of the Subtopic but does not discuss the main principles of the Subtopic.

XXX-YY-15 Scope and Scope Exceptions

This Section outlines the items (for example, the entities, transactions, instruments, or events) to which the guidance in the Subtopic does or does not apply. It does not contain actual accounting or reporting guidance (for example, subsequent measurement).

In cases where a Topic contains multiple Subtopics, the Overall Subtopic typically contains the pervasive scope for the entire Topic, including the other Subtopics. The remaining Subtopics then refer to the Overall Subtopic and address the specific exceptions from the pervasive Overall Scope. Users must be aware that the Overall ScopeSection is not a summary but, instead, represents the scope for the Overall Subtopic and the baseline for the other Subtopics, which may include different scope inclusions or exclusions.

In many circumstances, guidance codified in a Subtopic may apply equally to all items within the Subtopic's scope. However, certain codified guidance within the Subtopic may apply only to a subset of items (such as restricted scope guidance). In those circumstances, the restricted scope language was placed with the restricted scope guidance. For example, if a certain measurement standard was allowed only for a specific transaction, then the restricted scope would appear only in the corresponding measurement Section together with the specific measurement requirement.

As described in the discussion under the heading titled [Intersecting content](#), the majority of Industry Subtopics intersect with General Topics. In these cases, users must be cognizant of the Industry Topic scope and the related General Topic scope.

XXX-YY-20 Glossary

This Section contains all the glossary terms used in the Subtopic.

The Master Glossary contains all terms identified as glossary terms throughout the Codification.

Clicking on any term in the Master Glossary will display where the term is used. The Master Glossary may contain identical terms with different definitions, some of which may not be appropriate for a particular Subtopic. For any particular Subtopic, users should only use the glossary terms included in the particular Subtopic Glossary Section (Section 20).

XXX-YY-25 Recognition

This Section addresses the criteria, timing, and location (within the financial statements) for recognizing a particular item.

XXX-YY-30 Initial Measurement

This Section addresses the criteria and amounts used to measure a particular item at date of recognition. In many cases, this Section may be empty because the initial standards did not include initial measurement.

XXX-YY-35 Subsequent Measurement

This Section relates almost exclusively to assets, liabilities, and equity. It addresses the criteria and amounts used to measure a particular asset, liability, or equity item subsequent to the date of recognition (for example, impairment, fair value changes, depreciation, amortization, and similar items).

XXX-YY-40 Derecognition

This Section relates almost exclusively to assets, liabilities, and equity. It addresses the criteria, the method to determine the amount of basis, and the timing to be used when derecognizing a particular asset, liability, or equity item for purposes of determining gain or loss, if any.

XXX-YY-45 Other Presentation Matters

This Section includes other presentation matters related to the Subtopic. Some examples include:

1. Specific balance sheet classification
2. Specific cash flow requirements
3. Specific effect on earnings per share.

50 Disclosure

This Section contains specific disclosure requirements for a Subtopic. It does not include general disclosure requirements that may reside in the Notes to Financial Statement Topic and other general presentation Topics. This Section may include references to general disclosure requirements that encompass the items addressed by the Subtopic. For example, the Receivables Subtopic contains a link to the general financial instrument disclosure requirements that relate to receivables.

XXX-YY-55 Implementation Guidance and Illustrations

This Section contains implementation guidance and illustrations, which are an integral part of the standards. The Codification separates implementation guidance and illustrations from the main body of the standards but provides references and links in both directions.

This Section provides guidance relating to the standards in simplified and generalized situations. Applying the standards to actual situations requires judgment, and the implementation guidance and illustrations are intended to aid in making those judgments. The implementation guidance and illustrations assume that all items addressed are material to the entity. Because the implementation guidance and illustrations cannot address all possible variations, users must consider carefully the facts and circumstances in actual situations when applying the provisions of the Subtopic.

XXX-YY-60 Relationships

This Section includes references to other Subtopics that may contain guidance related to the Subtopic. The references point to content in another Topic that is the object of the other Topic or the material otherwise relates to the particular Topic. For example, the Income Taxes Topic may have discussions of LIFO reserves as the object of an illustration or example. In this case, the Relationships Section of the Inventory Topic would refer to the LIFO material in the relevant Income Taxes Subtopic.

The relationships provide simple references to the relevant content but do not include a complete description of the relationship. In addition, the Section does not contain requirements.

While the goal is to include as many relevant relationships as possible, users should not assume that the lists are exhaustive.

XXX-YY-65**Transition and Open Effective Date Information**

This Section contains references to paragraphs within the Subtopic that have open transition guidance.

The transition guidance will appear in an emphasized manner in the text of the standards Sections. After the transition period lapses, the Codification Research System will remove the outdated guidance and the emphasis on the new content.

[NOTE: The Codification was written with an assumed effective date of December 31, 2008.

As a result, transition and open effective date guidance for dates before December 31, 2008, is not in the Codification (despite the fact that the effective date may not have occurred yet) because of its imminent removal as authoritative content. As such, there is no transition or effective date information in the Codification for such guidance. Users can search the original standards.]

XXX-YY-70**Grandfathered Guidance**

This Section contains descriptions, references, and transition periods for content grandfathered after July 1, 2009, by an Accounting Standards Update. See CodificationSection 105-10-70 and the grandfathered content section for more information about grandfathered materials.

XXX-YY-75**XBRL Elements**

This Section contains the related XBRL Elements for the Subtopic.

Securities and Exchange Commission (SEC) Sections

As noted in the section titled [Standards issued by the SEC](#), SEC content is included for reference to improve the usefulness of the Codification for public companies. The system attempts to embed relevant SEC content for reference in the same Topics and Subtopics as all other content. The goal was to place SEC content within applicable Sections, using unique SEC Section codes to distinguish the content. An “S” precedes the SEC Section codes.

SEC content has developed through different mechanisms and is not as easily codified using the same model as the non-SEC content without modifying existing rules, regulations, and so forth. Instead, all original SEC content remains essentially intact in the S99-SEC Materials Sections, except that SEC Observer comments made at EITF meetings are no longer shown with the related material from EITF Issues, and some Observer comments have been edited for appropriate context. The other SEC Sections contain links to the relevant content within the S99-SEC Materials Sections.

The Codification Research System will display the SEC content in separate Section following non-SEC content.

Subsections

Subsections are a further segregation of a Section and, except for the General Subsection, occur in a limited number of cases. Each Section has at least one Subsection, usually General. A Section may contain additional Subsections as a means of filtering content related to multiple Sections of the same Subtopic (see the discussion under the heading titled [Joining and combining content](#) for more details). Unlike a Section, a Subsection is not numbered. A Subsection differs from a

paragraph heading because the Codification Research System provides a feature to combine all Subsection content for a Topic, for example, the Receivables—Overall Subtopic includes Subsections for Acquisition, Development, and Construction Arrangements. This allows a user to combine all content related to acquisition, development, and construction arrangements.

Paragraph groups

Paragraph groups represent a series of related paragraphs under the same paragraph heading. The Topic structure allows paragraph groups to be subordinated to other paragraph groups because of dependencies. As a result, the paragraph groups are presented in a hierarchy. Within the Codification, one “>” symbol or a combination with one or more “.” symbols precede each paragraph group heading. The number of “.” symbols followed by a “>” symbol identifies the hierarchy among paragraph groups. For example, the following illustrates the hierarchy of the paragraph group headings:

```
>Statement of Financial Position Classification of Income Tax Accounts
  ..> Deferred Tax Accounts
    .. > Deferred Tax Accounts Related to an Asset or Liability.
```

When pending content text reflects a wording change in a heading, the hierarchical structure will be the same. However, the text will show “>” symbols instead of “.” symbols for heading text changes made prior to July 25, 2022.

Paragraphs

To ensure accurate links, paragraph numbers will not change over time. The content of a paragraph may be amended, but the paragraph number will remain constant.

New paragraphs will be inserted between existing paragraphs using a letter extension. For example, a new paragraph inserted between paragraphs 50-5 and 50-6 would be 50-5A.

Referencing the Codification in notes to financial statements and other documents

References to the Codification follow an established pattern.

Broad references in notes to financial statements

While the FASB does not provide guidance on how specific requirements of GAAP are referred to in notes to financial statements the FASB encourages the use of plain English to describe the broad Topic. For example, to refer to the requirements of the Derivatives and Hedging Topic, we suggest a reference similar to “as required by the Derivatives and Hedging Topic of the FASB Accounting Standards Codification.”

Detailed references in other documents

For purposes of establishing a consistent referencing approach for items such as working papers, articles, textbooks, and other similar items, the FASB suggests the following approach for referencing Codification content from outside the Codification:

1. FASB ASC {Codification reference}, for example:
 - a. Topics—FASB ASC Topic 310 [, Receivables]

- b. Subtopics—FASB ASC Subtopic 310-10 [, Receivables—Overall]
- c. Sections—FASB ASC Section 310-10-15 [, Receivables—Overall—Scope]
- d. Paragraph—FASB ASC paragraph 310-10-15-2
- e. Subparagraph—FASB ASC subparagraph 310-10-15-2(a).

Content-related structure and style matters

Intersecting content

As noted in the industry discussion under the heading titled [Topics](#), Industry Subtopics mirror the general Topic structure both in title and classification code, and the content resides in the Industry Topic. The use of a consistent code allows the FASB to create one version of the content that resides in a single location but allows users to access the same content from multiple locations in the navigation structure. For example, a user can access the system from the perspective of the agriculture industry looking for inventory content. Alternatively, the user could access inventory and find the agriculture industry content. In this case, Codification Topic 330 represents Inventory and Codification Topic 905 represents the Agriculture Industry.

As noted above, industry content resides in the Industry Topic. Therefore, Codification Subtopic 905-330 represents the Inventory Subtopic of the Agriculture Industry. When browsing Codification Topic 330, users will see Subtopic 905—Agriculture. That represents an intersection link to the content in Codification Subtopic 905-330.

In the case of intersecting content, users must be cognizant of the industry scope and the scope of the general Topic. To continue the previous example, the user of Codification Subtopic 905-330 (Agriculture/Inventory) must be cognizant of the scopes for Codification Topic 905 (Agriculture) and Codification Topic 330 (Inventory).

Editorial standards, style, and other matters

Entity vs. other forms

Standards before July 1, 2009, used numerous terms to describe an entity, such as *company*, *organization*, *enterprise*, *firm*, *preparer*, and so forth. To provide consistency, the FASB adopted the term *entity* as the appropriate term. As a result, *entity* replaces all previous uses of comparable terms.

Comparable terms—shall and should

Similar to the multiple terms used to refer to an entity, standards have used various words or phrases to refer to a requirement, such as *should*, *shall*, *is required to*, *must*, and others. The FASB believes such terms represent the same concept—the requirement to apply a standard.

To establish consistency, the Codification uses the term *shall* throughout the standards Sections. The Implementation Guidance and Illustrations Sections typically address example scenarios, and the words *would* and *should* are used to indicate that these represent hypothetical situations. See the discussion under the heading titled [Sections](#) for a discussion of the Implementation Guidance and Illustrations Section.

Glossary

Throughout the Codification process, glossary terms were identified either in the glossary or within the actual text of the standards. In many cases, a glossary term relates specifically to a particular Subtopic or Topic. The Master Glossary contains all terms identified as glossary terms throughout the Codification. Clicking on any term in the Master Glossary will display where the term is used. The Master Glossary may contain identical terms with different definitions, some of which may not be appropriate for a particular Subtopic.

Each Subtopic includes a Glossary Section with the terms used in that Subtopic. The standards Sections indicate glossary references at the first occurrence of a term in every Subsection. For any particular Subtopic, users should only use the glossary terms included in the particular Subtopic Glossary Section (Section 20).

Joining and combining content

By using consistent Sections, subscribers can access functions within the Codification Research System to combine similar types of content. For example, in the Codification Research System, subscribers can combine all Disclosure Sections for a Topic without the need to access each individual Subtopic. In fact, the functionality of the system enables subscribers to produce a comprehensive listing of all authoritative US GAAP disclosures by Topic.

In a similar fashion, as indicated in the discussion under the heading titled [Subsections](#), the system allows subscribers to combine Subsections. Unlike the Join Section feature, the Combine Subsection feature combines the Subsections on the basis of the Subsection title.

If the user clicks on "Show All in One Page" to join all subtopics or sections, the resulting page will not include section 75 XBRL Elements. If the user wants to see that section, they will have to navigate specifically to that section. Similarly, Section 75 XBRL Elements cannot be printed when joined sections are printed. Those sections must be printed separately.

General Codification matters

Materiality

Codification Topic 105 includes a discussion of materiality. Over the years, various standards have included language stating that a standard is applicable if an item is material. Retaining such individual materiality references in the Codification could lead users to believe that materiality applies to one set of standards, but not another. This is not the case.

Ongoing standard-setting process

Effective date and superseded standards

With the issuance of FASB Statement No. 168, *The FASB Accounting Standards Codification® and the Hierarchy of Generally Accepted Accounting Principles*, the FASB approved the Codification as the source of authoritative US GAAP for nongovernmental entities for interim and annual periods ending after September 15, 2009. The Codification supersedes all existing non-SEC standards. The Codification Research System will include the superseded standards for archive purposes.

Ongoing standard-setting process

The results of the ongoing standard-setting activity will be an Accounting Standards Update composed of the background and basis for conclusions together with an appendix of Accounting Standards Update Instructions. The title of the combined set will be Accounting Standards Update YYYY-XX, where YYYY is the year issued and XX is the sequential number for each Accounting Standards Update with that year. For example, the combined numbers would be 2009-01, 2009-02, and so forth. All authoritative US GAAP issued by the FASB will be issued in this format, regardless of the form in which such guidance may have been issued previously (for example, EITF Abstracts, FASB Staff Positions, FASB Statements, FASB Interpretations, and so forth). Accounting Standards Updates also will be issued for amendments to the SEC content in the Codification.

The FASB will organize the contents of Accounting Standards Updates using the same Section headings as those used in the Codification. The contents of the Accounting Standards Update Instructions will include marked changes. However, the Codification itself will not display marked changes in the body of the Codification, other than in an archived version of the Accounting Standards Update Instructions.

The FASB does not consider new Accounting Standards Updates as authoritative in their own right and will not amend Accounting Standards Updates. Instead, the Accounting Standards Updates serve only to provide background information about the issue, update the Codification, and provide the basis for conclusions on changes in the Codification. An Accounting Standards Update is a transient document to initiate the Board's process of creating Accounting Standards Update Instructions. The Accounting Standards Update Instructions will be the source used to update the Codification and the instructions will be available on the website. The FASB will update the Codification Research System and release a new Accounting Standards Update concurrently.

Pending Content

As the FASB amends existing Codification paragraphs, both the current paragraph and the updated paragraph will reside in the Codification until such time that the new guidance is completely effective for all entities. During that period, the Codification Research System will emphasize the newly amended paragraph as Pending Content and will provide a link to the related transition guidance. The intent of the Pending Content boxes is to provide users with information about how a paragraph will change when new guidance becomes authoritative.

When an amended paragraph is fully effective, the outdated guidance will be removed from the paragraph and the amended paragraph will remain without the Pending Content box.

Given different fiscal year-ends, the Pending Content boxes must remain in the system for a period of time sufficient for all entities to obtain the authoritative guidance that applies to their circumstances. After that period of time, the original content is removed and the Pending Content no longer appears as pending. The model to be applied when calculating the “roll-off” date is as follows:

The expected roll-off date should be six months following the latest fiscal year-end that an “extreme entity” (that is, an entity who adopts at the latest possible date allowed by the transition) could have applied the original requirements.

- a. Assume an Accounting Standards Update has an effective date for fiscal years beginning after November 15, 20X1. This would result in the latest fiscal year-end that an “extreme entity” could have applied the original requirements as beginning on November 15, 20X1, and ending November 14, 20X2.
- b. Applying this model would result in a roll-off date of May 14, 20X3.

Note: The purpose of the six-month period is to allow sufficient time for an entity to be aware of the change during its financial statement preparation and audit processes and to access the content without the need to use the archive feature. In the event that an entity does not complete its financial statements within six months, the entity can still access the previous content using the Codification archive feature.

Maintenance Updates

While the intent is to produce error-free content, any publishing process inadvertently may have irregularities. To accommodate the immediate nature of the necessary corrections, the FASB issues Maintenance Updates. These documents are prepared by the FASB staff and are not addressed by the Board. Maintenance Updates provide nonsubstantive corrections to the Codification, such as editorial corrections, link-related changes, and source fragment information changes (used for Cross Reference and the Printer-Friendly with Sources). Maintenance Updates appear on the Codification website under Other Sources.

Feedback

The FASB asks for constituent feedback on the Codification system and content. The Codification Research System allows users to submit content feedback at the paragraph level. Once submitted, the content feedback will be analyzed and processed, as necessary. In the event that the feedback requires a change to the Codification, the revision will be made in an Accounting Standards Update.

The FASB staff will evaluate feedback and consult with the Board as necessary.

The FASB requests the following types of feedback:

1. Overall, non-content-related matters. Please use the feedback link on the home page. In particular, we would like feedback that addresses Codification Research System functionality and performance.
2. Content-related matters. Please access the most relevant paragraph to provide the feedback

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and use the paragraph level feedback feature to submit your comments. In particular, we would like feedback that addresses:

- a. Fatal errors of any type
- b. Questions about or concerns with US GAAP requirements.

GAAP Taxonomy

Background

The GAAP Financial Reporting Taxonomy and SEC Reporting Taxonomy (collectively referred to as the “GAAP Taxonomy”) are lists of computer-readable tags in XBRL (eXtensible Business Reporting Language) format that are available for preparers to assign to their financial statements. The GAAP Taxonomy is essentially a dictionary of financial statement terms for GAAP requirements and common reporting practices as provided in the Codification. The elements in the GAAP Taxonomy allow computers to automatically search for, assemble, and process data so it can be readily accessed and analyzed by investors, analysts, journalists, and regulators. The GAAP Taxonomy is required in the creation of XBRL interactive data filings (i.e., XBRL-formatted financial statements) submitted to the SEC.

Including the GAAP Taxonomy elements in the Codification assists preparers in selecting the most appropriate element to be used for their filing to the SEC in XBRL format for the specific reporting requirement. As the Codification is updated, the GAAP Taxonomy is likewise updated for elements referenced to the Codification. However, while the Codification is updated throughout the year, improvements to the GAAP Taxonomy are released annually for acceptance by the SEC. As a result, the elements contained in the Codification may be inconsistent with an SEC-accepted version of the GAAP Taxonomy, which is static upon its release annually. The elements that are new or modified in a development GAAP Taxonomy (not yet released and accepted by the SEC) will be noted as Pending_addition or Pending_removal.

Section 75, XBRL Elements

The GAAP Taxonomy elements that are referenced to the guidance in a Codification Subtopic are listed in the Subtopic’s Section 75. Links from the GAAP Taxonomy elements to the SEC guidance in a Subtopic are listed in the Subtopic’s Section S75, also titled, XBRL Elements.

If a Subtopic contains both Sections 75 and S75, navigating to *either* Section within the Codification Research System (the System) will open a webpage that contains the content of *both* Sections. On such webpages, the SEC Section content will be shown in its entirety below the FASB Section content, in a box having a black “Securities and Exchange Commission (SEC)” header.

In Section 75, each GAAP Taxonomy element’s listing includes:

- A standard label for the element.
- The element’s name.
- Citations of paragraphs in the Subtopic that are referenced by the element.
- Citations of paragraphs in other Subtopics that are referenced by the element.

Within the System, each paragraph citation in a GAAP Taxonomy element’s listing is a link that can be clicked to navigate to cited paragraph.

There is no change history for the links from the GAAP Taxonomy to the Codification. However, the GAAP Taxonomy includes information on new, revised, or deprecated elements that

indicate when an element was modified and the nature of the change since the last annual release of the GAAP Taxonomy.

Codification Paragraphs

The elements from the GAAP Taxonomy that are referenced to a Codification paragraph are included within the “See XBRL elements” option to the right of the paragraph under the ellipsis. If present, elements will be displayed immediately in a pop-up window to the right under “XBRL Elements” and will be linked to a Section 75. If there are no elements linked to a paragraph, “No XBRL Reference available” will appear in the pop-up window under “XBRL Elements.”

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Each element label listed in the box is a link to the information for the element found in Section 75 of that Subtopic and clicking on the element label in Section 75 will open the related Codification content.

Exhibit 127

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Statement No. 168 (Superseded)*The FASB Accounting Standards Codification® and the Hierarchy of Generally Accepted Accounting Principles—a replacement of FASB Statement No. 162*

(Issue Date 06/09)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 167 (Superseded)***Amendments to FASB Interpretation No. 46(R)*

(Issue Date 06/09)

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(Issue Date 06/09)

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[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 161 (Superseded)***Disclosures about Derivative Instruments and Hedging Activities—an amendment of FASB Statement No.*

Statement No. 160 (Superseded)*Noncontrolling Interests in Consolidated Financial Statements—an amendment of ARB No. 51*

(Issue Date 12/07)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 141 (revised 2007) (Superseded)*Business Combinations*

(Issue Date 12/07)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 159 (Superseded)*The Fair Value Option for Financial Assets and Financial Liabilities—Including an amendment of FASB***Statement No. 115**

(Issue Date 02/07)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 158 (Superseded)*Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans—an amendment of FASB Statements No. 87, 88, 106, and 132(R)*

(Issue Date 09/06)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 157 (Superseded)*Fair Value Measurements*

(Issue Date 09/06)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 156 (Superseded)*Accounting for Servicing of Financial Assets—an amendment of FASB Statement No. 140*

(Issue Date 03/06)

[As Amended] [As Issued] [Summary] [Status]

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Statement No. 155 (Superseded)*Accounting for Certain Hybrid Financial Instruments—an amendment of FASB Statements No. 133 and 140*

(Issue Date 02/06)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 154 (Superseded)*Accounting Changes and Error Corrections—a replacement of APB Opinion No. 20 and FASB Statement No. 3*

(Issue Date 05/05)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 123 (revised 2004) (Superseded)*Share-Based Payment*

(Issue Date 12/04)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 153 (Superseded)*Exchanges of Nonmonetary Assets—an amendment of APB Opinion No. 29*

(Issue Date 12/04)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 152 (Superseded)*Accounting for Real Estate Time-Sharing Transactions—an amendment of FASB Statements No. 66 and 67*

(Issue Date 12/04)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 151 (Superseded)*Inventory Costs—an amendment of ARB No. 43, Chapter 4*

(Issue Date 11/04)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 150 (Superseded**)***Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity*

(Issue Date 5/03)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 149 (**Superseded**)***Amendment of Statement 133 on Derivative Instruments and Hedging Activities*

(Issue Date 4/03)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 148 (**Superseded**)***Accounting for Stock-Based Compensation—Transition and Disclosure—an amendment of FASB**Statement No. 123*

(Issue Date 12/02)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 147 (**Superseded**)***Acquisitions of Certain Financial Institutions—an amendment of FASB Statements No. 72 and 144 and**FASB Interpretation No. 9*

(Issue Date 10/02)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 146 (**Superseded**)***Accounting for Costs Associated with Exit or Disposal Activities*

(Issue Date 6/02)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 145 (**Superseded**)***Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical**Corrections*

(Issue Date 4/02)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 144 (**Superseded**)***Accounting for the Impairment or Disposal of Long-Lived Assets*

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(Issue Date 6/01)

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(Issue Date 6/01)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 141 (revised 2007) (**Superseded**)***Business Combinations*

(Issue Date 12/07)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 141 (**Superseded**)***Business Combinations*

(Issue Date 6/01)

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(Issue Date 9/00)

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Statement No. 138 (Superseded**)**

Accounting for Certain Derivative Instruments and Certain Hedging Activities—an amendment of FASB

Statement No. 133

(Issue Date 6/00)

[As Amended] [As Issued] [Status]

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Statement No. 137 (Superseded**)**

Accounting for Derivative Instruments and Hedging Activities—Deferral of the Effective Date of FASB

Statement No. 133—an amendment of FASB Statement No. 133

(Issue Date 6/99)

[As Amended] [As Issued] [Status]

Statement No. 136 (Superseded**)**

Transfers of Assets to a Not-for-Profit Organization or Charitable Trust That Raises or Holds Contributions for Others

(Issue Date 6/99)

[As Amended] [As Issued]

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Statement No. 135 (Superseded**)**

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(Issue Date 2/99)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 134 (Superseded**)**

Accounting for Mortgage-Backed Securities Retained after the Securitization of Mortgage Loans Held for Sale by a Mortgage Banking Enterprise—an amendment of FASB Statement No. 65

(Issue Date 10/98)

[As Amended] [As Issued] [Status]

Statement No. 133 (Superseded**)**

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(Issue Date 6/98)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 132 (revised 2003) (Superseded**)**

Employers' Disclosures about Pensions and Other Postretirement Benefits—an amendment of FASB

Statements No. 87, 88, and 106

(Issue Date 12/03)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 132 (Superseded**)**

Employers' Disclosures about Pensions and Other Postretirement Benefits—an amendment of FASB

Statements No. 87, 88, and 106

(Issue Date 2/98)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 131 (Superseded**)**

Disclosures about Segments of an Enterprise and Related Information

(Issue Date 6/97)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 130 (Superseded**)**

Reporting Comprehensive Income

(Issue Date 6/97)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 129 (Superseded**)**

Disclosure of Information about Capital Structure

(Issue Date 2/97)

[As Amended] [As Issued] [Summary] [Status]

Earnings per Share

(Issue Date 2/97)

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Statement No. 127 (Superseded)

Deferral of the Effective Date of Certain Provisions of FASB Statement No. 125—an amendment to FASB

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Statement No. 126 (Superseded)

Exemption from Certain Required Disclosures about Financial Instruments for Certain Nonpublic Entities

—an amendment to FASB Statement No. 107

(Issue Date 12/96)

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Statement No. 125 (Superseded)

Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities

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Statement No. 124 (Superseded)

Accounting for Certain Investments Held by Not-for-Profit Organizations

(Issue Date 11/95)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)

Statement No. 123 (revised 2004) (Superseded)

Share-Based Payment

(Issue Date 12/04)

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Statement No. 123 (Superseded)

Accounting for Stock-Based Compensation

(Issue Date 10/95)

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Statement No. 122 (Superseded)

Accounting for Mortgage Servicing Rights—an amendment of FASB Statement No. 65

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Statement No. 121 (Superseded)

Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of

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Accounting and Reporting by Mutual Life Insurance Enterprises and by Insurance Enterprises for Certain

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Disclosure about Derivative Financial Instruments and Fair Value of Financial Instruments

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Accounting for Contributions Received and Contributions Made

(Issue Date 6/93)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 115 **(Superseded)**

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(Issue Date 5/93)

[As Amended] [As Issued] [Summary] [Status]

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(Issue Date 5/93)

[As Amended] [As Issued] [Summary] [Status]

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Accounting and Reporting for Reinsurance of Short-Duration and Long-Duration Contracts

(Issue Date 12/92)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 112 **(Superseded)**

Employers' Accounting for Postemployment Benefits—an amendment of FASB Statements No. 5 and 43

(Issue Date 11/92)

[As Amended] [As Issued] [Summary] [Status]

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(Issue Date 11/92)

[As Amended] [As Issued] [Summary] [Status]

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Reporting by Defined Benefit Pension Plans of Investment Contracts—an amendment of FASB Statement No. 35

(Issue Date 8/92)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 109 **(Superseded)**

Accounting for Income Taxes

(Issue Date 2/92)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 108 **(Superseded)**

Accounting for Income Taxes-Deferral of the Effective Date of FASB Statement No. 96—an amendment of FASB Statement No. 96

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[As Issued] [Summary] [Status]

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(Issue Date 12/91)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 106 **(Superseded)**

Employers' Accounting for Postretirement Benefits Other Than Pensions

(Issue Date 12/90)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 105 **(Superseded)**

Disclosure of Information about Financial Instruments with Off-Balance-Sheet Risk and Financial Instruments with Concentrations of Credit Risk

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Regulated Enterprises-Accounting for the Discontinuation of Application of FASB Statement No. 71

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Recognition of Depreciation by Not-for-Profit Organizations

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[As Amended] [As Issued] [Summary] [Status]

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Regulated Enterprises—Accounting for Phase-in Plans—an amendment of FASB Statement No. 71

(Issue Date 8/87)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 91 **(Superseded)**

Accounting for Nonrefundable Fees and Costs Associated with Originating or Acquiring Loans and Initial Direct Costs of Leases—an amendment of FASB Statements No. 13, 60, and 65 and a rescission of FASB Statement No. 17

(Issue Date 12/86)

[As Amended] [As Issued] [Summary] [Status]

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Regulated Enterprises—Accounting for Abandonments and Disallowances of Plant Costs—an amendment of FASB Statement No. 71

(Issue Date 12/86)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 89 **(Superseded)**

Financial Reporting and Changing Prices

(Issue Date 12/86)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 88 **(Superseded)**

Employers' Accounting for Settlements and Curtailments of Defined Benefit Pension Plans and for Termination Benefits

(Issue Date 12/85)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 87 **(Superseded)**

Employers' Accounting for Pensions

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[As Amended] [As Issued] [Summary] [Status]

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Accounting for the Costs of Computer Software to Be Sold, Leased, or Otherwise Marketed

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[As Amended] [As Issued] [Summary] [Status]

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Yield Test for Determining whether a Convertible Security is a Common Stock Equivalent—an amendment of APB Opinion No. 15

(Issue Date 3/85)

[As Issued] [Summary] [Status]

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[As Amended] [As Issued] [Summary] [Status]

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[As Issued] [Summary] [Status]

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Statement No. 81 (Superseded)

Disclosure of Postretirement Health Care and Life Insurance Benefits

(Issue Date 11/84)

[As Issued] [Summary] [Status]

Statement No. 80 (Superseded)

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[As Issued] [Summary] [Status]

Statement No. 79 (Superseded)

Elimination of Certain Disclosures for Business Combinations by Nonpublic Enterprises—an amendment of APB Opinion No. 16

(Issue Date 2/84)

[As Amended] [As Issued] [Summary] [Status]

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(Issue Date 12/83)

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(Issue Date 12/83)

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(Issue Date 11/83)

[As Issued] [Summary] [Status]

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[As Issued] [Summary] [Status]

Statement No. 73 (Superseded)

Reporting a Change in Accounting for Railroad Track Structures—an amendment of APB Opinion No. 20

(Issue Date 8/83)

[As Issued] [Summary] [Status]

Statement No. 72 (Superseded)

Accounting for Certain Acquisitions of Banking or Thrift Institutions—an amendment of APB Opinion No. 17, an interpretation of APB Opinions 16 and 17, and an amendment of FASB Interpretation No. 9

(Issue Date 2/83)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 71 (Superseded)

Accounting for the Effects of Certain Types of Regulation

(Issue Date 12/82)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 70 (Superseded)

Financial Reporting and Changing Prices: Foreign Currency Translation—an amendment of FASB

Statement No. 33

(Issue Date 12/82)

Statement No. 69 [\(Superseded\)](#)*Disclosures about Oil and Gas Producing Activities—an amendment of FASB Statements 19, 25, 33, and 39*

(Issue Date 11/82)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 68 [\(Superseded\)](#)***Research and Development Arrangements*

(Issue Date 10/82)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 67 [\(Superseded\)](#)***Accounting for Costs and Initial Rental Operations of Real Estate Projects*

(Issue Date 10/82)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 66 [\(Superseded\)](#)***Accounting for Sales of Real Estate*

(Issue Date 10/82)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 65 [\(Superseded\)](#)***Accounting for Certain Mortgage Banking Activities*

(Issue Date 9/82)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 64 [\(Superseded\)](#)***Extinguishments of Debt Made to Satisfy Sinking-Fund Requirements—an amendment of FASB Statement**No. 4*

(Issue Date 9/82)

[\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 63 [\(Superseded\)](#)***Financial Reporting by Broadcasters*

(Issue Date 6/82)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 62 [\(Superseded\)](#)***Capitalization of Interest Cost in Situations Involving Certain Tax-Exempt Borrowings and Certain Gifts and**Grants—an amendment of FASB Statement No. 34*

(Issue Date 6/82)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 61 [\(Superseded\)](#)***Accounting for Title Plant*

(Issue Date 6/82)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 60 [\(Superseded\)](#)***Accounting and Reporting by Insurance Enterprises*

(Issue Date 6/82)

[\[As Amended\]](#) [\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 59 [\(Superseded\)](#)***Deferral of the Effective Date of Certain Accounting Requirements for Pension Plans of State and Local**Governmental Units—an amendment of FASB Statement No. 35*

(Issue Date 4/82)

[\[As Issued\]](#) [\[Summary\]](#) [\[Status\]](#)**Statement No. 58 [\(Superseded\)](#)***Capitalization of Interest Cost in Financial Statements That Include Investments Accounted for by the**Equity Method—an amendment of FASB Statement No. 34*

(Issue Date 4/82)

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Statement No. 57 (Superseded)

Related Party Disclosures

(Issue Date 3/82)

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Statement No. 56 (Superseded)

Designation of AICPA Guide and Statement of Position (SOP) 81-1 on Contractor Accounting and SOP 81-2 concerning Hospital-Related Organizations as Preferable for Purposes of Applying APB Opinion 20—an amendment of FASB Statement No. 32

(Issue Date 2/82)

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Statement No. 55 (Superseded)

Determining whether a Convertible Security is a Common Stock Equivalent—an amendment of APB

Opinion No. 15

(Issue Date 2/82)

[As Issued] [Summary] [Status]

Statement No. 54 (Superseded)

Financial Reporting and Changing Prices: Investment Companies—an amendment of FASB Statement No. 33

(Issue Date 1/82)

[As Issued] [Summary] [Status]

Statement No. 53 (Superseded)

Financial Reporting by Producers and Distributors of Motion Picture Films

(Issue Date 12/81)

[As Issued] [Summary] [Status]

Statement No. 52 (Superseded)

Foreign Currency Translation

(Issue Date 12/81)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 51 (Superseded)

Financial Reporting by Cable Television Companies

(Issue Date 11/81)

[As Amended] [As Issued] [Summary] [Status]

Statement No. 50 (Superseded)

Financial Reporting in the Record and Music Industry

(Issue Date 11/81)

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Statement No. 49 (Superseded)

Accounting for Product Financing Arrangements

(Issue Date 6/81)

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Statement No. 48 (Superseded)

Revenue Recognition When Right of Return Exists

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Statement No. 47 (Superseded)

Disclosure of Long-Term Obligations

(Issue Date 3/81)

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Statement No. 46 (Superseded)

Financial Reporting and Changing Prices: Motion Picture Films

(Issue Date 3/81)

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Statement No. 45 (Superseded)

Statement No. 44 (Superseded)

Accounting for Intangible Assets of Motor Carriers—an amendment of Chapter 5 of ARB No. 43 and an interpretation of APB Opinions 17 and 30

(Issue Date 12/80)

[As Issued] [Summary] [Status]

Statement No. 43 (Superseded)

Accounting for Compensated Absences

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Statement No. 42 (Superseded)

Determining Materiality for Capitalization of Interest Cost—an amendment of FASB Statement No. 34

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Statement No. 41 (Superseded)

Financial Reporting and Changing Prices: Specialized Assets—Income-Producing Real Estate—a supplement to FASB Statement No. 33

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Statement No. 40 (Superseded)

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Statement No. 39 (Superseded)

Financial Reporting and Changing Prices: Specialized Assets—Mining and Oil and Gas—a supplement to FASB Statement No. 33

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Statement No. 38 (Superseded)

Accounting for Preacquisition Contingencies of Purchased Enterprises—an amendment of APB Opinion No. 16

(Issue Date 9/80)

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Statement No. 37 (Superseded)

Balance Sheet Classification of Deferred Income Taxes—an amendment of APB Opinion No. 11

(Issue Date 7/80)

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Statement No. 36 (Superseded)

Disclosure of Pension Information—an amendment of APB Opinion No. 8

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Statement No. 35 (Superseded)

Accounting and Reporting by Defined Benefit Pension Plans

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Statement No. 34 (Superseded)

Capitalization of Interest Cost

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Statement No. 33 (Superseded)

Financial Reporting and Changing Prices

Statement No. 32 (Superseded)

Specialized Accounting and Reporting Principles and Practices in AICPA Statements of Position and Guides on Accounting and Auditing Matters—an amendment of APB Opinion No. 20

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Statement No. 31 (Superseded)

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Statement No. 30 (Superseded)

Disclosure of Information about Major Customers—an amendment of FASB Statement No. 14

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Statement No. 29 (Superseded)

Determining Contingent Rentals—an amendment of FASB Statement No. 13

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Statement No. 28 (Superseded)

Accounting for Sales with Leasebacks—an amendment of FASB Statement No. 13

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Statement No. 27 (Superseded)

Classification of Renewals or Extensions of Existing Sales-Type or Direct Financing Leases—an amendment of FASB Statement No. 13

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Statement No. 26 (Superseded)

Profit Recognition on Sales-Type Leases of Real Estate—an amendment of FASB Statement No. 13

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Statement No. 25

Suspension of Certain Accounting Requirements for Oil and Gas Producing Companies—an amendment of FASB Statement No. 19

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Statement No. 24 (Superseded)

Reporting Segment Information in Financial Statements That Are Presented in Another Enterprise's Financial Report—an amendment of FASB Statement No. 14

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Statement No. 23

Inception of the Lease—an amendment of FASB Statement No. 13

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Statement No. 22 (Superseded)

Changes in the Provisions of Lease Agreements Resulting from Refundings of Tax-Exempt Debt—an amendment of FASB Statement No. 13

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Statement No. 21 (Superseded)

Suspension of the Reporting of Earnings per Share and Segment Information by Nonpublic Enterprises—an amendment of APB Opinion No. 15 and FASB Statement No. 14

Statement No. 20 (Superseded)

Accounting for Forward Exchange Contracts—an amendment of FASB Statement No. 8

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Statement No. 19 (Superseded)

Financial Accounting and Reporting by Oil and Gas Producing Companies

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Statement No. 18 (Superseded)

Financial Reporting for Segments of a Business Enterprise: Interim Financial Statements—an amendment of FASB Statement No. 14

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Statement No. 17 (Superseded)

Accounting for Leases: Initial Direct Costs—an amendment of FASB Statement No. 13

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Statement No. 16 (Superseded)

Prior Period Adjustments

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Statement No. 15 (Superseded)

Accounting by Debtors and Creditors for Troubled Debt Restructurings

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Statement No. 14 (Superseded)

Financial Reporting for Segments of a Business Enterprise

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Statement No. 13 (Superseded)

Accounting for Leases

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Statement No. 12 (Superseded)

Accounting for Certain Marketable Securities

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Statement No. 11 (Superseded)

Accounting for Contingencies: Transition Method—an amendment of FASB Statement No. 5

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Statement No. 10 (Superseded)

Extension of "Grandfather" Provisions for Business Combinations—an amendment of APB Opinion No. 16

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Statement No. 9 (Superseded)

Accounting for Income Taxes: Oil and Gas Producing Companies—an amendment of APB Opinions No. 11 and 23

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Statement No. 8 (Superseded)

Exhibit 128

105-10-05 Overview and Background - General

General

05-1 This Topic establishes the *Financial Accounting Standards Board (FASB) Accounting Standards Codification®* (Codification) as the source of authoritative generally accepted accounting principles (GAAP) recognized by the FASB to be applied by **nongovernmental entities**. Rules and interpretive releases of the Securities and Exchange Commission (SEC) under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants. In addition to the SEC's rules and interpretive releases, the SEC staff issues Staff Accounting Bulletins that represent practices followed by the staff in administering SEC disclosure requirements, and it utilizes SEC Staff Announcements and Observer comments made at Emerging Issues Task Force meetings to publicly announce its views on certain accounting issues for SEC registrants.

05-2 If the guidance for a transaction or event is not specified within a source of authoritative GAAP for that entity, an entity shall first consider accounting principles for similar transactions or events within a source of authoritative GAAP for that entity and then consider nonauthoritative guidance from other sources. An entity shall not follow the accounting treatment specified in accounting guidance for similar transactions or events in cases in which those accounting principles either prohibit the application of the accounting treatment to the particular transaction or event or indicate that the accounting treatment should not be applied by analogy.

05-3 Accounting and financial reporting practices not included in the Codification are nonauthoritative. Sources of nonauthoritative accounting guidance and literature include, for example, the following:

- a. Practices that are widely recognized and prevalent either generally or in the industry
- b. FASB Concepts Statements

c. American Institute of Certified Public Accountants (AICPA) Issues Papers

d. International Financial Reporting Standards of the International Accounting Standards Board

e. Pronouncements of professional associations or regulatory agencies

f. Technical Information Service Inquiries and Replies included in AICPA Technical Practice Aids

g. Accounting textbooks, handbooks, and articles.

The appropriateness of other sources of accounting guidance depends on its relevance to particular circumstances, the specificity of the guidance, the general recognition of the issuer or author as an authority, and the extent of its use in practice.

05-4 The Codification contains the authoritative standards that are applicable to both public nongovernmental entities and **nonpublic** nongovernmental entities. Content contained in the SEC Sections (designated by an “S” preceding the Section number) is provided for convenience and relates only to SEC registrants. The SEC Sections do not contain the entire population of SEC rules, regulations, interpretive releases, and staff guidance. Content in the SEC Sections is expected to change over time, and there may be delays between SEC and staff changes to guidance and Accounting Standards Updates. The Codification does not replace or affect guidance issued by the SEC or its staff for public entities in their filings with the SEC.

05-5 The FASB does not consider Accounting Standards Updates as authoritative in their own right. Instead, new Accounting Standards Updates serve only to update the Codification, provide background information about the guidance, and provide the bases for conclusions on the change(s) in the Codification. All nongrandfathered non-SEC accounting guidance not included in the Codification is superseded and deemed nonauthoritative.

05-6 The provisions of the Codification need not be applied to immaterial items.

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Exhibit 129

932-360-25 Recognition

General

> Full Cost

25-1 Full cost accounting is addressed in the Securities and Exchange Commission (SEC) literature.

> Successful Efforts

25-2 The guidance in this Subtopic deals with accounting under a successful efforts method.

25-3 Only those **exploration costs** and development costs that relate directly to specific oil and gas reserves are capitalized; costs that do not relate directly to specific reserves are charged to expense. The successful efforts method of accounting conforms to the traditional concept of the historical cost of an asset. Under the successful efforts method, certain types of costs may be capitalized as construction-in-progress pending further information about the existence of future benefits, but as soon as the additional information becomes available, and it is known whether future benefits exist, those costs are either reclassified as an amortizable asset or charged to expense.

25-4 An entity's oil- and gas-producing activities involve certain special types of assets. Costs of those assets shall be capitalized when incurred. Those assets broadly defined are: mineral interests in properties, sometimes called **properties**; **wells and related equipment and facilities**; **support equipment and facilities**; and **uncompleted wells, equipment, and facilities**.

> Accounting at the Time Costs Are Incurred

25-5 In the oil and gas industry, ultimately the expected future benefits that an entity is attempting to obtain through its acquisition, exploration, and development activities are represented by oil and gas reserves. But other than by purchasing minerals-in-place, an entity does not acquire reserves directly. Rather, it acquires properties (rights to extract any reserves that may be discovered in the future) and it acquires (develops) systems capable of producing the oil and gas reserves that are discovered.

25-6 The effect of paragraphs 932-360-25-7 through 25-16 : , which deal with accounting at the time costs are incurred, is to recognize as assets all of the following:

a. Unproved properties

b. Proved properties

c. Wells and related equipment and facilities (which consist of all development costs plus the costs of drilling those **exploratory wells** and exploratory-type stratigraphic test wells that find proved reserves)

d. Support equipment and facilities used in oil- and gas-producing activities

e. Uncompleted wells, equipment, and facilities.

> > Acquisition

25-7 Costs incurred to purchase, lease, or otherwise acquire a property (whether unproved or proved) shall be capitalized when incurred. They include all of the following:

a. The costs of lease bonuses and options to purchase or lease properties

b. The portion of costs applicable to minerals when land including mineral rights is purchased in fee

c. Brokers' fees

d. Recording fees

e. Legal costs

f. Other costs incurred in acquiring properties.

> > Exploration

25-8 Exploration costs may be incurred both before acquiring the related property (sometimes referred to in part as prospecting costs) and after acquiring the property.

25-9 All of the following are principal types of exploration costs, which include depreciation and applicable operating costs of support equipment and facilities (see paragraph 932-360-25-16 :) and other costs of exploration activities:

a. Costs of topographical, geological, and geophysical studies, rights of access to properties to conduct those studies, and salaries and other expenses of geologists, geophysical crews, and others conducting those studies. Collectively, those are sometimes referred to as geological and geophysical costs.

b. Costs of carrying and retaining undeveloped properties, such as delay rentals, ad valorem taxes on the properties, legal costs for title defense, and the maintenance of land and lease records.

c. Dry hole contributions and bottom hole contributions.

d. Costs of drilling and equipping exploratory wells.

e. Costs of drilling exploratory-type **stratigraphic test wells** . While the costs of drilling stratigraphic test wells are sometimes considered to be geological and geophysical costs, they are accounted for separately under this Subtopic for reasons explained in paragraphs 932-360-25-17 through 25-18 : .

25-10 The costs of drilling exploratory wells and the costs of drilling exploratory-type stratigraphic test wells shall be capitalized as part of the entity's uncompleted wells, equipment, and facilities pending determination of whether the well has found proved reserves.

25-11 An entity sometimes conducts geological and geophysical studies and other exploration activities on a property owned by another party, in exchange for which the entity is contractually entitled to receive an interest in the property if proved reserves are found or to be reimbursed by the owner for the geological and geophysical and other costs incurred if proved reserves are not found. In that case, the entity conducting the geological and geophysical studies and other exploration activities shall account for those costs as a receivable when incurred and, if proved reserves are found, they shall become the cost of the proved property acquired.

> > Development

25-12 Development costs are incurred to obtain access to proved reserves and to provide facilities for extracting, treating, gathering, and storing the oil and gas.

25-13 More specifically, development costs, including depreciation and applicable operating costs of support equipment and facilities (see paragraph 932-360-25-16 :) and other costs of development activities, are costs incurred to:

a. Gain access to and prepare well locations for drilling, including all of the following:

1. Surveying well locations for the purpose of determining specific development drilling sites
2. Clearing ground
3. Draining
4. Road building
5. Relocating public roads, gas lines, and power lines, to the extent necessary in developing the proved reserves.

b. Drill and equip **development wells** , development-type stratigraphic test wells, and **service wells** , including the costs of platforms and of well equipmentsuch as:

1. The wellhead assembly
2. Pumping equipment
3. Tubing
4. Casing.

c. Acquire, construct, and install production facilities such as:

1. Lease flow lines
2. Separators
3. Treaters
4. Heaters
5. Manifolds
6. Measuring devices
7. Production storage tanks
8. Natural gas cycling and processing plants
9. Utility and waste disposal systems.

d. Provide improved recovery systems.

25-14 Development costs shall be capitalized as part of the cost of an entity's wells and related equipment and facilities. Thus, all costs incurred to drill and equip development wells, development-type stratigraphic test wells, and service wells are development costs and shall be capitalized, whether the well is successful or unsuccessful. Costs of drilling those wells and costs of constructing equipment and facilities shall be included in the entity's uncompleted wells, equipment, and facilities until drilling or construction is completed.

> > Production

25-15 Production costs are those costs incurred to operate and maintain an entity's wells and related equipment and facilities, including depreciation and applicable operating costs of support equipment and facilities (see the following paragraph) and other costs of operating and maintaining those wells and related equipment and facilities. They become part of the cost of oil and gas produced. Examples of production costs (sometimes called lifting costs) are:

- a. Costs of labor to operate the wells and related equipment and facilities
- b. Repairs and maintenance
- c. Materials, supplies, and fuel consumed and services utilized in operating the wells and related equipment and facilities
- d. Property taxes and insurance applicable to proved properties and wells and related equipment and facilities
- e. Severance taxes.

Depreciation, depletion, and amortization of capitalized acquisition, exploration, and development costs also become part of the cost of oil and gas produced along with production (lifting) costs identified in this paragraph.

> > Support Equipment and Facilities

25-16 The cost of acquiring or constructing support equipment and facilities used in oil- and gas-producing activities shall be capitalized. Examples of support equipment and facilities include:

- a. Seismic equipment
- b. Drilling equipment
- c. Construction and grading equipment
- d. Vehicles
- e. Repair shops
- f. Warehouses
- g. Supply points
- h. Camps
- i. Division, district, or field offices.

Some support equipment or facilities are acquired or constructed for use exclusively in a single activity—exploration, development, or production. Other support equipment or facilities may serve two or more of those activities and may also serve the entity's transportation, refining, and marketing activities. To the extent that the support equipment and facilities are used in oil- and gas-producing activities, their depreciation and applicable operating costs become an exploration, development, or production cost, as appropriate.

> Stratigraphic Test Wells

25-17 Stratigraphic test wells are drilled to obtain information. They are not normally intended to be completed for hydrocarbon production and are customarily abandoned after drilling is completed and the information is obtained. Normally, stratigraphic test wells are drilled offshore to determine whether an offshore property contains sufficient reserves to justify the cost of constructing and installing a production platform and to determine where to locate such a platform.

25-18 Stratigraphic test wells are divided into two types—exploratory-type and development-type—and the standards of accounting for the two types parallel the accounting for exploratory wells and development wells, respectively. Thus, an exploratory-type **stratigraphic test well** is accounted for in a manner similar to an **exploratory well** drilled in an area requiring a major capital expenditure before production could begin (see paragraph 932-360-25-10 :). The costs of drilling the exploratory-type stratigraphic test well are capitalized pending determination of whether proved reserves are found, subject to the condition that those costs shall not continue to be carried as assets if the entity is not making sufficient progress assessing the reserves and the economic and operating viability of the project if the quantity of reserves found would not justify completion of the well for production had it not been simply a stratigraphic test well. Thus if an exploratory-type stratigraphic test well discovers reserves that are classified as proved and facilities are to be installed to produce those reserves, the cost of the exploratory-type stratigraphic test well is accounted for as part of the cost of the facilities even though the particular well itself may be abandoned. Accounting for the other type of stratigraphic test well—development-type—is identical to accounting for development wells and other development costs generally: capitalize as part of the cost of an entity's wells and related equipment and facilities (as discussed in paragraph 932-360-25-14 :).

> Links to Other Relevant Topics

25-19 Land that is not undergoing developmental activities necessary to get it ready for its intended use is not an asset qualifying for interest capitalization. See paragraph 835-20-15-8 : □for the criteria and methods for capitalizing interest costs.

25-20 See Section 255-10-50 : □for methods of determining discounted future net cash flows relating to proved oil and gas reserve quantities.